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AUG 04 2022

OCEANSIDE CITY CLERK

APPEAL OF PLANNING COMMISSION ACTION

APPEALS MUST BE FILED WITH THE CITY CLERK'S OFFICE WITHIN 10 CALENDAR DAYS OF THE DATE OF FINAL ACTION

PROJECT/ACTION BEING APPEALED

PROJECT NAME: Ocean KAMP; DATE OF FINAL DECISION: July 25, 2022

RESOLUTION NUMBER: Resolution No. 2022-P15 and Resolution No. 2022-P16

FORM OF APPEAL

APPEAL FEE - \$1,838 [X] PETITION [ ] (PLEASE SEE BELOW FOR EXPLANATION/SIGN OFF)

LETTER INCLUDING A STATEMENT SPECIFICALLY IDENTIFYING THE PORTION(S) OF THE DECISION BEING APPEALED AND THE BASIS FOR THE APPEAL IS ATTACHED [X]

PERSON FILING APPEAL

NAME: San Diegans for Sustainable, Economic and Equitable Development c/o Tara Rengifo; Daytime Telephone: 650-589-1660

ADDRESS: Adams Broadwell Joseph & Cardozo, 601 Gateway Boulevard, Suite 1000; CITY: South San Francisco; STATE: CA; ZIP: 94080

APPEALED BY: APPLICANT [ ], INTERESTED PARTY [X], PROPERTY OWNER WITHIN NOTICE AREA [ ]

SIGNATURE: Tara C. Rengifo; DATE: August 3, 2022

CONTACT PERSON (IF DIFFERENT FROM PERSON FILING APPEAL)

NAME

ADDRESS, CITY, STATE, ZIP

Daytime Telephone, Fax Number, Email Address

Section 4604: To appeal by petition for a waiver of the appeal fee, the appeal must be accompanied by the signatures of 50% of the property owners within the noticed area or 25 signatures of the property owners or tenants within the noticed area, whichever is less. I hereby certify that this appeal is being submitted in accordance with the Zoning Ordinance and meets the criteria specified in Section 4604 for an appeal by petition. Signature: \_\_\_\_\_ Date: \_\_\_\_\_

NOTE: All petitions must contain original signatures, along with the printed name a'

Received by: TS
Via: Counter
Copy to: CAO, CMO, Parlone, Sergio

ADAMS BROADWELL JOSEPH & CARDOZO

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*Of Counsel*  
MARC D. JOSEPH  
DANIEL L. CARDOZO

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AUG 04 2022

August 4, 2022

**Via Email and Hand Delivery**

OCEANSIDE CITY CLERK

Mayor Sanchez and Councilmembers  
c/o City Clerk Dr. Zeb Navarro, Ed.D.  
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**Via Email Only**

Sergio Madera  
Principal Planner  
City of Oceanside Planning Division  
300 North Coast Highway  
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**Email:** [SMadera@oceansideca.org](mailto:SMadera@oceansideca.org)

**Re: Notice of Appeal of Planning Commission Approvals and Certification of the FSEIR for the Ocean KAMP Project in the City of Oceanside (SCH Number 2006111033; Tentative Map (T19-00004); Development Plan (D19-00016); Conditional Use Permit (CUP19-00021))**

Dear Mayor Sanchez, City Councilmembers, Dr. Navarro, and Mr. Madera:

We are writing on behalf of San Diegans for Sustainable, Economic and Equitable Development ("SD SEED")<sup>1</sup> to appeal the July 25, 2022 decision of the

<sup>1</sup> SD SEED is an unincorporated association of individuals and labor organizations formed to ensure that the construction of major urban projects in the San Diego region proceeds in a manner that minimizes public and worker health and safety risks, avoids or mitigates environmental and public service impacts, and fosters long-term sustainable construction and development opportunities. The association includes the United Association of Plumbers, Steamfitters, Refrigeration & HVAC Service Technicians Local 230, the International Association of Bridge and Structural Ironworkers Local 229, and Sprinkler Fitters Local 669, along with their members, their families, and other

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City of Oceanside (“City”) Planning Commission to adopt Resolution No. 2022-P15 to certify the Final Supplemental Environmental Impact Report (“FSEIR”) and adopt Resolution No. 2022-P16 approving the Ocean KAMP Project (Tentative Map (T19-00004), Development Plan (D19-00016), and Conditional Use Permit (“CUP”) (CUP19-00021) (SCH Number 2006111033)) (“Project”).<sup>2</sup> The Project is located in the City on approximately 92.3 acres at 3480 Mission Avenue, Oceanside, California 92054.<sup>3</sup> The Project site is comprised of APNs 160-270-31, -79, and -82; 160-280-14, -48, -49, -50, -51, -53, -54, and -55; 160-290-58, -60, -63; as well as 160-270-77.<sup>4</sup>

The Project proposes a mixed-use development consisting of residential, commercial, and open space uses.<sup>5</sup> The Project proposes approximately 35 acres of commercial uses within the central/southwestern portion of the site and approximately 36 acres of residential uses within the northern and eastern portions of the site.<sup>6</sup> The remaining 20 acres of the site are proposed to be preserved as open space, including a 4-acre stepping-stone wildlife corridor located along the eastern property boundary.<sup>7</sup> Commercial uses are proposed to include a 300-key resort hotel, hotel conference buildings, a surf lagoon and beach club, and commercial buildings with approximately 126,400 square feet (“sf”) of office, retail and restaurants.<sup>8</sup> Total square footage of the resort, commercial, and conference facilities is approximately 472,850 sf.<sup>9</sup> A maximum of 700 multi-family residential dwelling units are proposed within nine residential lots on the Project site.<sup>10</sup>

This appeal is based on the City’s failure to comply with the requirements of the California Environmental Quality Act (“CEQA”), as well as violations of the Subdivision Map Act, the City’s Subdivision Ordinance, and state and local land use

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individuals who live and work in the San Diego region. Individual members of SD SEED and its member organizations include City of Oceanside residents Omar Rivera, Lance Wulff, and Darin Thibodeau. SD SEED individuals and labor organizations may be adversely affected by the potential public and worker health and safety standards associated with Project development, as well as its potential environmental impacts.

<sup>2</sup> City of Oceanside, *Final Supplemental Environmental Impact Report; Ocean KAMP Resort, Spa, Adventure* (July 2022)(hereinafter “FSEIR”); City of Oceanside, *Staff Report for the Ocean KAMP Project* (July 22, 2022)(hereinafter “Staff Report”).

<sup>3</sup> FSEIR at S-1.

<sup>4</sup> *Id.* at S-2.

<sup>5</sup> *Id.*

<sup>6</sup> *Id.*

<sup>7</sup> *Id.*

<sup>8</sup> *Id.*

<sup>9</sup> *Id.*

<sup>10</sup> *Id.*

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laws. The grounds for this appeal are set forth herein and in the attached comment letters that were previously submitted to the City and the Planning Commission, respectively, in advance of the Planning Commission hearing on the Project's requested entitlements.<sup>11</sup> These prior comments were prepared with the assistance of technical experts, including air quality, public health, Greenhouse Gas ("GHG") emissions, and hazardous materials experts Matt Hagemann, P.G., C.Hg., and Paul E. Rosenfeld, Ph.D., at Soil / Water / Air Protection Enterprise ("SWAPE"); traffic and transportation expert Daniel T. Smith Jr., P.E.; and biological resources expert Scott Cashen.

This appeal is filed in accordance with the appeal requirements set forth in the City's Zoning Ordinance, Article 46,<sup>12</sup> which requires an appeal of a Planning Commission decision to be filed in writing with the City Clerk on the prescribed form, along with the accompanying appeal fee, and the appeal must state the reasons for the appeal.<sup>13</sup> This appeal letter is accompanied by the appeal form, the attached evidence and comment letters supporting the grounds for the appeal, and the appeal fee of \$1,838.00.

As set forth in SD SEED's comments on the Draft Supplemental Environmental Impact Report ("DSEIR") and to the Planning Commission on the FSEIR and Project entitlements, the Planning Commission's decision to approve the Project violated CEQA, the Subdivision Map Act, the City's Subdivision Ordinance, and state and local land use laws. First, the City's decision to supplement the Pavilion Final Environmental Impact Report ("FEIR") for the Ocean KAMP Project pursuant to CEQA Guidelines section 15163 was a prejudicial abuse of discretion. The California Supreme Court declared that "[a] decision to proceed under CEQA's subsequent review provisions [when there is a change in plans, circumstances, or available information after a project received initial approval] [] rest[s] on a determination—whether implicit or explicit—that the original environmental

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<sup>11</sup> Comments on the Draft Supplemental Environmental Impact Report for the Draft Supplemental Environmental Impact Report for the Ocean KAMP Project in the City of Oceanside, County of San Diego (SCH Number 2006111033) (October 8, 2021)(hereinafter, "DSEIR Comments") ("Exhibit A"); Comments submitted by SD SEED to Planning Commission on Agenda Item No. 6 for the Ocean KAMP Project in the City of Oceanside, County of San Diego (SCH Number 2006111033)(July 25, 2022)(hereinafter "PC Comments")("Exhibit B").

<sup>12</sup> City of Oceanside, Comprehensive Zoning Ordinance Article 46, §§ 4601, *et seq.*; *See also* City of Oceanside, Comprehensive Zoning Ordinance Article 40, §§ 4001, *et seq.*

<sup>13</sup> *Id.* at § 4604(A).

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document retains some informational value.”<sup>14</sup> As applied here, the stale, outdated, and irrelevant analysis in the Pavilion FEIR fails to retain informational value to the decision-making process for this Project. None of the environmental impacts examined in the Pavilion FEIR were analyzed with regards to Project’s new residential uses, new commercial uses, including a 300-room hotel with associated facilities and surf lagoon, new recreational amenities and open space areas, an additional 300,000 cubic yards (“CY”) of fill material for grading, and increased heights associated with an increase in multiple story structures, among others. The Ocean KAMP Project is an entirely new project for which the Pavilion FEIR does not retain informational value and the Planning Commission failed to support its determination otherwise with substantial evidence.

Even if the City Council were to determine that the Pavilion FEIR retains some informational value, the Planning Commission’s decision to uphold staff’s determination that the Pavilion FEIR did not require major revisions due to the new Ocean KAMP Project remains unsupported by substantial evidence.<sup>15</sup> Major revisions to the Pavilion FEIR were necessary and should have been required by the Planning Commission due to the involvement of new and substantially more severe significant impacts on transportation/traffic, air quality, public health, biological resources, and water supply, as discussed below and detailed in the attached comments.<sup>16</sup> Thus, the Planning Commission’s decision to uphold the City’s reliance on a supplement to the environmental analysis in the Pavilion FEIR was not supported by substantial evidence. SD SEED respectfully requests that the City Council vacate the Planning Commission’s decision and direct staff to prepare a legally adequate project-level EIR that assesses the full scope of the Project’s significant environmental effects.

Second, the Planning Commission’s decision to certify the FSEIR was unsupported by the record because the FSEIR fails in significant aspects to perform its function as an informational document that is meant “to provide public agencies and the public in general with detailed information about the effect which a

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<sup>14</sup> *Friends of Coll. of San Mateo Gardens v. San Mateo Cnty. Cmty. Coll. Dist.* (2016) 1 Cal. 5th 937, 951.

<sup>15</sup> *Id.* at 952. (“If the original environmental document retains some informational value despite the proposed changes, then the agency proceeds to decide under CEQA’s subsequent review provisions whether project changes will require major revisions to the original environmental document because of the involvement of new, previously unconsidered significant environmental effects.”)

<sup>16</sup> See 14 C.C.R. § 15163(a)(2). Per CEQA Guidelines Section 15163, a Supplemental EIR can be prepared if only *minor* additions or changes would be necessary to make the previous EIR adequately apply to the project in the changed situation.

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proposed project is likely to have on the environment” and “to list ways in which the significant effects of such a project might be minimized.”<sup>17</sup> The information used to establish existing conditions for transportation impacts in the FSEIR was inaccurate and unsupported, thereby undermining meaningful public review. For example, the FSEIR erroneously found that the Project’s commercial and hotel components would generate less Vehicle Miles Travelled (“VMT”) than the purported baseline because the analysis utilizes hypothetical conditions that assume the undeveloped Pavilion project is constructed and operating in the baseline. CEQA does not permit relying on such a baseline to measure impacts. The CEQA Guidelines clearly establish that the baseline must not “include hypothetical conditions, such as those that might be allowed, but have never actually occurred, under existing permits or plans, as the baseline.”<sup>18</sup> Moreover, by overstating the baseline, the FSEIR severely underestimated the Project’s transportation impacts and may have also significantly underestimated the Project’s air quality impacts.

The environmental impact analysis in the FSEIR was also unsupported by substantial evidence and failed to adequately disclose and mitigate the new and more severe significant impacts related to transportation/traffic, air quality, public health, biological resources, and water supply. As detailed in the attached expert comments by Mr. Daniel T. Smith Jr., P.E., the FSEIR failed to disclose the Project’s significant transportation impact resulting from inconsistencies with the City’s General Plan Policy 3.20, which requires offsite improvements for developments that fail to meet the level of service D threshold. The FSEIR’s analysis also improperly omitted a long-term cumulative transportation impact analysis and should not have relied on the outdated analysis in the Pavilion FEIR. Finally, Mr. Smith determined that the Project’s significant residential VMT impacts cannot be mitigated to less than significant levels through implementation of community designs under Land Use /Transportation Measure LUT-9, and thus the impacts from the Project’s residential VMT remain significant and unmitigated.

As discussed in the attached expert report by SWAPE, the FSEIR underestimated the Project’s construction emissions by relying on unsupported values for architectural coating categories and thus failed to adequately analyze the

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<sup>17</sup> *Laurel Heights Improvement Assn. v. Regents of University of California* (1988) 47 Cal.3d 376, 391.

<sup>18</sup> 14 C.C.R. § 15125(1)(3); See *Hollywoodians Encouraging Rental Opportunities (HERO) v. City of Los Angeles et al.* (2019) 37 Cal.App.5th 768 (baseline for CEQA review was vacant building which was no longer part of rental market, rather than building’s prior status as occupied apartment building).

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Project's new and more severe significant impacts on air quality. Additionally, the FSEIR's conclusion that the Project's public health impacts would be less than significant was unsupported by substantial evidence because the analysis in both the Pavilion FEIR and the FSEIR failed to quantify the Project's cancer risk in comparison to the quantitative emission threshold established by the San Diego Air Pollution Control District ("SDAPCD"). The FSEIR therefore failed to disclose the significance of the Project's public health impacts.

The Project involves numerous revisions to the former Pavilion project that substantially increase the severity of impacts, like edge effects, on sensitive biological resources, as discussed in detail in the attached expert report prepared by Mr. Scott Cashen. The FSEIR's analysis of impacts on wetlands and to species due to night lighting was unsupported by substantial evidence, and the FSEIR failed to provide substantial evidence that impacts to grassland resources will be fully mitigated.

Regarding the Project's new and more severe impacts on water supply, the FSEIR relied on undisclosed conservation measures to mitigate the Project's impacts on water supply but failed to disclose these water conservation measures and did not analyze whether these measures would reduce the Project's impacts to less than significant levels based on substantial evidence. The FSEIR failed to support the Project's water demand estimations and omitted information about when and how much recycled water is required and available to support the Project such that the reliance on recycled water to offset potable water needs was unsupported by any evidence.

The Planning Commission's decision to certify the FSEIR based on these deficient impact analyses and unsupported conclusions violated CEQA. An agency cannot conclude that an impact is less than significant unless it produces rigorous analysis and concrete substantial evidence justifying the finding.<sup>19</sup> The FSEIR, in tandem with the Pavilion FEIR, did not comply with these requirements of CEQA and should have been revised and recirculated, not certified. The City Council must vacate the Planning Commission's certification and require the City of Oceanside, as the lead agency, to withdraw the FSEIR and prepare a legally adequate, project-level EIR to address the significant impacts described in this comment letter and the attached expert comments.

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<sup>19</sup> *Kings Cty. Farm Bur. v. Hanford* (1990) 221 Cal.App.3d 692, 732.  
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Finally, the Project fails to comply with the mandatory requirements under the Subdivision Map Act and the City's Subdivision Ordinance because substantial evidence demonstrates that the Project is likely to have new and more severe significant impacts on air quality, public health, transportation, biological resources, and water supply than previously analyzed in the Pavilion FEIR, and for which the City failed to require feasible and effective mitigation in the FSEIR. Therefore, the Planning Commission's findings approving the Project's Tentative Map were not supported by substantial evidence and must be vacated.

For these reasons, SD SEED requests that the City Council review our comment letters in their entirety, vacate the Planning Commission's approvals and certification of the FSEIR, and require preparation of a legally adequate, project-level EIR to address the new and more severe significant impacts described in this comment letter and in the attached expert comments.

Thank you for your attention to this matter.

Sincerely,

*Tara C. Rengifo*

Tara C. Rengifo  
Associate Attorney

Attachments  
TCR:acp

**EXHIBIT A**

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\*Not admitted in California  
Licensed in Colorado

October 8, 2021

**Via Email and Overnight Mail**

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**Re: Comments on Draft Supplemental Environmental Impact Report for the Ocean KAMP Project in the City of Oceanside, County of San Diego (SCH Number 2006111033)**

Dear Mr. Madera:

We are writing on behalf of San Diegans for Sustainable, Economic and Equitable Development ("SD SEED") regarding the Draft Supplemental Environmental Impact Report ("DSEIR") prepared by the City of Oceanside ("City") for the Ocean KAMP Project (Tentative Map (T19-00004),<sup>1</sup> Development Plan (D19-00016),<sup>2</sup> Conditional Use Permit ("CUP") (CUP19-00021)<sup>3</sup> (SCH Number

<sup>1</sup> The Tentative Map proposes to divide the Project site into sixteen (16) lots, of which nine (9) lots would be for residential uses. City of Oceanside, *Draft Supplemental Environmental Impact Report; Ocean KAMP Resort, Spa, Adventure* at 1-7 (August 2021)(hereinafter "DSEIR"). A lease agreement between the City and Applicant would be required for use of an approximately 1.95-acre parcel (APN 160-270-77) in the southwestern corner of the Project site that is currently owned by the City. *Id.* The City also has a water well designated for placement within this parcel, which could be used to extract groundwater. *Id.*

<sup>2</sup> The Project site zoning is Community Commercial ("CC"). DSEIR at 3-5. The Land Use Element of the City's General Plan specifies that the CC designation is to provide the community with commercial centers with commercial establishments as well as entertainment and dining. *Id.* Residential and open space uses are not allowed by right in the CC designation but may be permitted with the approval of a Mixed-Use Development Plan and a CUP. *Id.*

<sup>3</sup> A CUP is required for the proposed hotel uses and approval of the Mixed-Use Development Plan, as described above in Footnote 2. DSEIR at 1-7.

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2006111033) (“Project”). The Project is located in the City on approximately 94.25 acres of land north of Mission Avenue and State Route 76, immediately east of Foussat Road and west of Fireside Street.<sup>4</sup> The Project site includes 15 parcels, comprised of APNs 160-270-31, -79, and -82; 160-280-14, -48, -49, -50, -51, -53, -54, and -55; 160-290-58, -60, -63; as well as 160-270-77.<sup>5</sup>

The Project proposes a mixed-use development consisting of residential, commercial, and open space uses.<sup>6</sup> The proposed residential component includes 700 multi-family units.<sup>7</sup> The Project also includes approximately 486,100 square-feet of commercial space uses, including a 300-room hotel with associated facilities, surf lagoon, and up to 126,400 square-feet of retail, medical, office, dining, and fitness facilities.<sup>8</sup>

The DSEIR is intended to supplement the Pavilion Final Environmental Impact Report (“Pavilion FEIR”), which was certified by the City on November 19, 2008.<sup>9</sup> Pursuant to Sections 15162 and 15163 of the California Environmental Quality Act (“CEQA”) Guidelines, the DSEIR states that it evaluates only the environmental impacts that are potentially greater than effects disclosed in the Pavilion FEIR, and omits an analysis of effects expected to be similar or identical to those assessed for the prior Project.<sup>10</sup> The DSEIR asserts that “[m]odifications particularly relate to potential changes in proposed land uses associated with the new Project (i.e., mixed-use, including residential development, versus the primarily retail uses previously analyzed in the Pavilion FEIR) and/or where changes in regulations or City plans may require new analysis.”<sup>11</sup>

The DSEIR fails in significant aspects to perform its function as an informational document that is meant “to provide public agencies and the public in general with detailed information about the effect which a proposed project is likely to have on the environment” and “to list ways in which the significant effects of such a project might be minimized.”<sup>12</sup> First and foremost, the decision to supplement the

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<sup>4</sup> City of Oceanside, *Notice of Availability of Draft Environmental Impact Report* at 1.

<sup>5</sup> *Id.*

<sup>6</sup> *Id.*

<sup>7</sup> *Id.*

<sup>8</sup> *Id.*

<sup>9</sup> DSEIR at 1-2.

<sup>10</sup> *Id.*

<sup>11</sup> *Id.*

<sup>12</sup> *Laurel Heights Improvement Assn. v. Regents of University of California* (1988) 47 Cal.3d 376, 391. 5607-004acp

Pavilion FEIR for the Ocean KAMP Project pursuant to CEQA Guidelines Section 15163 is a prejudicial abuse of discretion. The Ocean KAMP Project is an entirely new project, rather than a minor modification of the previous Pavilion Project.<sup>13</sup> Accordingly, the City is required to engage in an initial study of the Project to determine whether an EIR is required under Public Resources Code Section 21151.

Second, even if a subsequent or supplemental EIR was appropriate (which it was not), there have been substantial changes from the prior Pavilion Project which will require major revisions of the Pavilion FEIR due to the involvement of new significant effects or a substantial increase in the severity of previously identified effects, and there is new information demonstrating that the Project will have new and more severe effects than analyzed in the Pavilion FEIR that trigger the need for a more comprehensive new or subsequent EIR.<sup>14</sup> The environmental analysis in the DSEIR is inadequate to support the City's reliance on CEQA Guidelines Section 15163 and not supported by substantial evidence.

In particular, the DSEIR fails to analyze the 'whole of the action' by improperly segmenting review of the Project's residential uses, and impermissibly deferring this analysis to unspecified future review at the time of development plans.<sup>15</sup> The Project Description in the DSEIR is also not "accurate, stable and finite" as required by CEQA's informational requirements due to numerous omissions regarding the Project's residential uses (e.g., maps, site plans, designs, materials, what buildings would be built, number of buildings, units per building) and uncertainty regarding Project timelines.<sup>16</sup> Baseline data to establish existing conditions for noise and transportation/traffic was inaccurate and unsupported, thereby undermining meaningful public review. Ambient noise levels were established by brief, isolated measurements taken at the southern edge of the Project site only, which are wholly inadequate to ensure an accurate evaluation of the Project's significant noise impacts. With regards to the baseline data for traffic impacts, the DSEIR found that the Project's commercial and hotel components would generate less Vehicle Miles Travelled ("VMT") than the purported baseline, which strongly suggests that the data relied on hypothetical conditions that improperly skewed the baseline.

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<sup>13</sup> See 14 Cal. Code Regs. ("CCR") § 15163(a)(2). Per CEQA Guidelines Section 15163, a Supplemental EIR can be prepared if only *minor* additions or changes would be necessary to make the previous EIR adequately apply to the project in the changed situation.

<sup>14</sup> Pub. Resources Code § 21166; 14 CCR § 15162(a).

<sup>15</sup> See DSEIR at 2-8.

<sup>16</sup> *County of Inyo v. City of Los Angeles* (1977) 71 Cal.App.3d 185, 193.  
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Finally, the DSEIR fails to adequately disclose and mitigate the new and more severe impacts related to noise, transportation/traffic, air quality, health risks, greenhouse gas (“GHG”) emissions, water quality and supply, biological resources, and hazards. An agency cannot conclude that an impact is less than significant unless it produces rigorous analysis and concrete substantial evidence justifying the finding.<sup>17</sup> As set forth below, the DSEIR, in tandem with the Pavilion FEIR, does not comply with these requirements of the CEQA. The City of Oceanside, as the lead agency, must withdraw the DSEIR and prepare a legally adequate, project-level EIR to address the potentially significant impacts described in this comment letter and the attached expert comments. In the alternative, the City must prepare a subsequent EIR pursuant to CEQA Guidelines Section 15162 to address the substantial changes in the Project, and the new and more severe impacts of the current Project that were not analyzed or mitigated in the Pavilion FEIR.

We prepared our comments with the assistance of technical experts, including air quality, GHG emissions, and geologic hazards experts Matt Hagemann, P.G., C.Hg., and Paul E. Rosenfeld, Ph.D., at Soil / Water / Air Protection Enterprise (“SWAPE”); traffic and transportation expert Daniel T. Smith Jr., P.E.; and biological resources expert Scott Cashen, M.S. SWAPE’s comments, Mr. Hagemann’s *curriculum vitae*, and Mr. Rosenfeld’s *curriculum vitae* are attached to this letter as Exhibit A. Mr. Smith’s comments and his *curriculum vitae* are attached to this letter as Exhibit B. Mr. Cashen’s comments and his *curriculum vitae* are attached to this letter as Exhibit C.

## I. STATEMENT OF INTEREST

SD SEED is an unincorporated association of individuals and labor organizations formed to ensure that the construction of major urban projects in the San Diego region proceeds in a manner that minimizes public and worker health and safety risks, avoids or mitigates environmental and public service impacts, and fosters long-term sustainable construction and development opportunities. The association includes the United Association of Plumbers, Steamfitters, Refrigeration & HVAC Service Technicians Local 230, the International Association of Bridge and Structural Ironworkers Local 229, and Sprinkler Fitters Local 669, along with their members, their families, and other individuals who live and work in the San Diego region.

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<sup>17</sup> *Kings Cty. Farm Bur. v. Hanford* (1990) 221 Cal.App.3d 692, 732.  
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Individual members of SD SEED and its member organizations include City of Oceanside residents Omar Rivera, Lance Wulff, and Darin Thibodeau. These individuals live, work, recreate, and raise their families in the City and surrounding communities. Accordingly, they would be directly affected by the Project's environmental and health and safety impacts. Individual members may also work on the Project itself. They will be first in line to be exposed to any health and safety hazards that exist onsite.

SD SEED has an interest in enforcing environmental laws that encourage sustainable development and ensure a safe working environment for its members. Environmentally detrimental projects can jeopardize future jobs by making it more difficult and more expensive for business and industry to expand in the region, and by making the area less desirable for new businesses and new residents. Continued environmental degradation can, and has, caused construction moratoriums and other restrictions on growth that, in turn, reduce future employment opportunities.

SD SEED supports the development of commercial, research and development, and office projects where properly analyzed and carefully planned to minimize impacts on public health, climate change, and the environment. Commercial projects should avoid adverse impacts to air quality, public health, climate change, noise, water, and traffic, and must incorporate all feasible mitigation to ensure that any remaining adverse impacts are reduced to the maximum extent feasible. Only by maintaining the highest standards can commercial development truly be sustainable.

## II. LEGAL BACKGROUND

CEQA is designed to inform decision-makers and the public about the potential, significant environmental effects of a project.<sup>18</sup> "CEQA's fundamental goal [is] fostering informed decision-making."<sup>19</sup> "The purpose of CEQA is not to generate paper, but to compel government at all levels to make decisions with environmental consequences in mind."<sup>20</sup>

"The foremost principle in interpreting CEQA is that the Legislature intended the act to be read so as to afford the fullest possible protection to the

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<sup>18</sup> 14 C.C.R. § 15002(a)(1).

<sup>19</sup> *Laurel Heights Improvement Assn.*, 47 Cal.3d at 402.

<sup>20</sup> *Bozung v. LAFCO* (1975) 13 Cal.3d 263, 283.

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environment within the reasonable scope of the statutory language.”<sup>21</sup> CEQA has two primary purposes. First, CEQA is designed to inform decision makers and the public about the potential, significant environmental effects of a project.<sup>22</sup> “Its purpose is to inform the public and its responsible officials of the environmental consequences of their decisions before they are made. Second, CEQA requires public agencies to avoid or reduce environmental damage when “feasible” by requiring “environmentally superior” alternatives and all feasible mitigation measures.<sup>23</sup>

#### **A. Subsequent CEQA Review**

When a previously approved project for which an EIR was prepared is modified, CEQA requires the lead agency to conduct subsequent or supplemental environmental review when one or more of the following events occur:

- (a) Substantial changes are proposed in the project which will require major revisions of the environmental impact report;
- (b) Substantial changes occur with respect to the circumstances under which the project is being undertaken which will require major revisions in the environmental impact report; or
- (c) New information, which was not known and could not have been known at the time the environmental impact report was certified as complete, becomes available.<sup>24</sup>

In assessing the need for subsequent or supplemental environmental review, the lead agency must determine, on the basis of substantial evidence in light of the whole record, if one or more of the following events have occurred:

- (1) Substantial changes are proposed in the project which will require major revisions of the previous EIR due to the involvement of new significant effects or a substantial increase in the severity of previously identified effects;
- (2) Substantial changes occur with respect to the circumstances under which the project is undertaken which will require major

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<sup>21</sup> *Communities for a Better Env't. v. Cal. Res. Agency* (2002) 103 Cal. App.4th 98, 109.

<sup>22</sup> 14 CCR § 15002(a)(1).

<sup>23</sup> 14 CCR§ 15002(a)(2) and (3); *See also Berkeley Keep Jets Over the Bay Com. v. Bd. of Port Comrs.* (2001) 91 Cal.App.4th 1344, 1354; *Citizens of Goleta Valley v. Board of Supervisors* (1990) 52 Cal.3d 553, 564.

<sup>24</sup> Pub. Resources Code § 21166; CEQA Guidelines § 15162.  
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- revisions of the previous EIR due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects; or
- (3) New information of substantial importance, which was not known and could not have been known with the exercise of reasonable diligence at the time the previous EIR was certified as complete or the negative declaration was adopted, shows any of the following:
- (A) The project will have one or more significant effects not discussed in the previous EIR or negative declaration;
  - (B) Significant effects previously examined will be substantially more severe than shown in the previous EIR;
  - (C) Mitigation measures or alternatives previously found not to be feasible would in fact be feasible, and would substantially reduce one or more significant effects of the project, but the project proponents decline to adopt the mitigation measure or alternative; or
  - (D) Mitigation measures or alternatives which are considerably different from those analyzed in the previous EIR would substantially reduce one or more significant effects on the environment, but the project proponents decline to adopt the mitigation measure or alternative.<sup>25</sup>

“The subsequent review provisions,...are [] designed to ensure that an agency that proposes changes to a previously approved project ‘explore[s] environmental impacts not considered in the original environmental document.’ [internal citation omitted]”<sup>26</sup>

CEQA authorizes a Supplemental EIR only if “*minor* additions or changes would be necessary to make the previous EIR adequately apply to the project in the changed situation.”<sup>27</sup> Because of this limited situation in which a Supplemental

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<sup>25</sup> 14 C.C.R. §§ 15162(a)(1)-(3).

<sup>26</sup> *Friends of Coll. of San Mateo Gardens v. San Mateo Cty. Cmty. Coll. Dist.* (2016) 1 Cal. 5th 937, 951.

<sup>27</sup> 14 C.C.R. § 15163(a)(2) (emphasis added).  
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EIR can be used, CEQA allows it to contain “only the information necessary to make the previous EIR adequate for the project as revised.”<sup>28</sup> In all other cases, a new EIR or subsequent EIR is required to fully analyze the revised project and its impacts. As explained by the court in *Friends of Coll. of San Mateo Gardens*, “[a]n agency that proposes changes to a previously approved project must determine whether the changes are ‘[s]ubstantial’ and ‘will require major revisions of the previous EIR or negative declaration due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects.’ [internal citation omitted].”<sup>29</sup>

### **III. THE CITY’S DECISION TO SUPPLEMENT THE PAVILION FEIR FOR THIS PROJECT IS A PREJUDICIAL ABUSE OF DISCRETION**

CEQA Guidelines Section 15163 states that an SEIR may be prepared if “only *minor* additions or changes would be necessary to make the previous EIR adequately apply to the project in the changed situation.”<sup>30</sup> Here, the Project, as currently proposed, is an entirely new project rather than a minor modification of the former project analyzed over ten years ago in the Pavilion FEIR. Accordingly, the City should have conducted an initial study of this Project to determine whether an EIR is required under Public Resources Code Section 21151.

#### **A. The City’s Reliance on the Supplemental Review Provisions of CEQA Guidelines Section 15163 is Not Supported by Substantial Evidence**

To proceed with a SEIR, the question is whether “the original document retains some relevance to the ongoing decision-making process” and informational value.<sup>31</sup> The court in *California Coastkeeper All. v. State Lands Com.* examined when the supplemental review provisions under Section 15163 apply, concluding that “CEQA Guidelines section 15163 applies when ‘an EIR can be made adequate by additions or changes that respond to a limited set of issues’....”<sup>32</sup> “Whether an initial environmental document remains relevant despite changed plans or circumstances—like the question whether an initial environmental document

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<sup>28</sup> 14 C.C.R. § 15163(b).

<sup>29</sup> *Friends of Coll. of San Mateo Gardens*, 1 Cal. 5th at 950.

<sup>30</sup> 14 C.C.R. § 15163(a)(2) (emphasis added).

<sup>31</sup> *Friends of Coll. of San Mateo Gardens*, 1 Cal. 5th at 951-953.

<sup>32</sup> *California Coastkeeper All. v. State Lands Com.* (2021) 64 Cal. App. 5th 36, 59, *review denied* (July 28, 2021).

requires major revisions due to changed plans or circumstances—is a predominantly factual question. ...A court’s task on review is [] to decide whether the agency’s determination is supported by substantial evidence;...”<sup>33</sup>

Here, the decision to proceed under CEQA’s supplemental review provisions is not supported by substantial evidence. The Project is substantially different than the Pavilion Project. It includes an entirely new residential component that was not part of the Pavilion Project, which consisted of a proposed 950,000 square foot (“SF”) shopping center with associated retail uses.<sup>34</sup> The stale and outdated analysis in the Pavilion FEIR fails to retain informational value relevant to the decision-making process for this Project. Moreover, changed circumstances under which the Project is undertaken require more than “minor [] changes” to make the Pavilion FEIR adequate for the Project. The City must instead perform an initial study and prepare an EIR.

Table 2-1 in the DSEIR identifies some of the differences between the Pavilion FEIR and the currently proposed Project, but fails to adequately disclose the numerous project differences.<sup>35</sup> In reality, this Project is far from an iteration of the former project such that the Pavilion FEIR lacks informational value to the present decision-making process.<sup>36</sup> The Ocean KAMP Project is an entirely new project for which an EIR is required.

First, this Project proposes an entirely different mixed-use development that includes residential, commercial, and open space uses. None of the environmental impacts assessed in the Pavilion FEIR were analyzed with regards to residential uses. Now, approximately thirty-six (36) acres of the Project site will be dedicated to 700 new residential units (e.g., townhomes, condominiums, apartments, and senior housing).<sup>37</sup> As discussed herein and evaluated in the attached expert reports, residential uses present a host of new significant impacts that were not analyzed or even considered in the Pavilion FEIR.<sup>38</sup> For example, residential land uses add

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<sup>33</sup> *Friends of Coll. of San Mateo Gardens*, 1 Cal. 5th at 952-953.

<sup>34</sup> DSEIR at 1-2.

<sup>35</sup> *Id.* at 2-4—2-5.

<sup>36</sup> See *Friends of Coll. of San Mateo Gardens*, 1 Cal. 5th at 951-952 (“[U]nder CEQA, when there is a change in plans, circumstances, or available information after a project has received initial approval, the agency’s environmental review obligations ‘turn[] on the value of the new information to the still pending decisionmaking process.’ [internal citation omitted]”

<sup>37</sup> *Id.*

<sup>38</sup> *Id.*

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“additional noise attenuation considerations,” and can increase the severity of the significant impacts evaluated in the Pavilion FEIR, such as impacts to wildlife and habitats.<sup>39</sup> This Project also proposes entirely new commercial uses, including a 300-room hotel with associated facilities and surf lagoon.<sup>40</sup> The Pavilion FEIR did not evaluate or consider these uses, thereby offering no analysis of impacts related to residential uses, and no relevance or informational value to the analysis of this Project. Finally, the new recreational amenities and open space areas proposed by this Project were not considered or analyzed in the Pavilion FEIR (i.e., “[a]pproximately 20 acres of the site would be dedicated open space, offering opportunities for walking, hiking, running, and biking.”)<sup>41</sup>

Second, the requested Tentative Map entitlement for this Project is for sixteen (16) lots—nine (9) of which would be for residential uses—as compared to the ten (10) lots evaluated in the Pavilion FEIR.<sup>42</sup>

Third, although the current Project site shares the same general project location with the Pavilion Project,<sup>43</sup> this Project would require 300,000 cubic yards (“CY”) of fill material for grading activities in addition to the 496,000 CY of fill needed to raise the site for the former project.<sup>44</sup> This additional volume of fill and grading activities will result in additional construction activities and ground disturbance, and will therefore result in additional impacts related to air quality, GHG emissions, health risks, biological resources, geologic hazards, and water resources, that were not analyzed in the Pavilion FEIR and is not simply a “minor change” from the previous project.

Fourth, the current Project design, drawings, and materials are entirely different from the former project. For example, the resort component of this Project includes new features, like a three-acre surf lagoon/wave pool that is described as an “uncharacteristic land use in the City of Oceanside....”<sup>45</sup> Moreover, the resort “[d]esign would be modern and rectilinear, ... Primary wall features include glass,

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<sup>39</sup> DSEIR at 4.2-7; Expert comments by Scott Cashen (September 30, 2021)(“Exhibit C”)(hereinafter “Cashen”).

<sup>40</sup> *Id.*

<sup>41</sup> DSEIR 2-9.

<sup>42</sup> *Id.* at 2-6. Note that the DSEIR incorrectly asserts that there are “6 fewer lots than 2008” when in fact there are six *additional* lots for this Project. *Id.*

<sup>43</sup> *Id.* (current project is a few acres larger).

<sup>44</sup> *Id.*

<sup>45</sup> DSEIR, Appendix G at 5.

metal trimming and wood elements with notable striation.”<sup>46</sup> The resort features also include substantial glass fencing around the resort pools and surf lagoon, which was not a part of the former project’s design.<sup>47</sup> Residential uses would be designed with “clean modern lines [using] materials associated with classic California coastal modernism.”<sup>48</sup> The proposed modern design and materials are substantially different from the former project, which was “influenced by Mediterranean, agrarian, and California Modern aesthetics. Materials include natural-toned cement plaster, simulated stone, and wood and metal siding.”<sup>49</sup> Introducing “uncharacteristic land use[s],” new materials, and substantially different designs materially changes the environmental impact analysis in the Pavilion FEIR, especially with regards to impacts on biological resources.<sup>50</sup>

Finally, as compared to the project assessed in the Pavilion FEIR, this Project “would increase the number of multiple story structures (and associated increased heights).”<sup>51</sup> For example, “within the four-story resort structure, [a] smaller footprint would be maximized through vertical rather than horizontal (more sprawling) construction.”<sup>52</sup>

The aforementioned Project changes and changed circumstances are distinguishable from the changes evaluated in *California Coastkeeper All. v. State Lands Com.*<sup>53</sup> There, the court held that substantial evidence supported the California State Land Commission’s determination that changes to a water desalination plant project, including the installation of one-millimeter stainless steel wedgewire screens and three-port diffusers, and reduction in seawater intake volume, would necessitate only minor additions or changes to make the previous EIR adequate such that the agency could proceed pursuant to the supplemental EIR provisions under CEQA and CEQA Guidelines.<sup>54</sup> By way of comparison, this Project is proposing entirely new land uses, additional lots, 300,000 CY of additional fill material, entirely new design features, different materials, and added multiple

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<sup>46</sup> DSEIR at 2-7.

<sup>47</sup> *Id.* at 2-15.

<sup>48</sup> *Id.* at 2-9.

<sup>49</sup> City of Oceanside, *Final Environmental Impact Report for the Pavilion at Oceanside* at S-8 (September 4, 2008)(hereinafter “Pavilion FEIR”).

<sup>50</sup> See e.g., Cashen.

<sup>51</sup> DSEIR at 4.1-4.

<sup>52</sup> *Id.* at 2-7.

<sup>53</sup> *California Coastkeeper All.*, 64 Cal. App. 5th at 61.

<sup>54</sup> *Id.*

story structures with associated increased heights. As discussed herein and in the attached expert reports, the changes proposed by the Project result in a new and different project than previously analyzed and increase the severity of a multitude of potentially significant impacts that require substantial changes to the Pavilion FEIR. For the foregoing reasons, electing to supplement the Pavilion FEIR for this Project under CEQA Guidelines Section 15163 is a prejudicial abuse of discretion.

### **B. The Ocean KAMP Project Requires Preparation of an EIR**

If the modifications or changes render the previous environmental document irrelevant, then courts have held that the agency should instead conduct an initial study pursuant to Section 21151 to determine whether the project may have significant effects on the environment.<sup>55</sup> CEQA mandates that an EIR “provide public agencies and the public in general with detailed information about the effect which a proposed project is likely to have on the environment; to list ways in which the significant effects of such a project might be minimized; and to indicate alternatives to such a project.”<sup>56</sup> Unlike an EIR, a SEIR “need only contain the information necessary to make the previous EIR adequate for the project as revised.”<sup>57</sup> Thus, the analysis of environmental effects in an SEIR is limited to only those impacts that may result in potentially greater effects than disclosed in the original document.<sup>58</sup> Elements deemed to be unchanged are not even examined in an SEIR.<sup>59</sup>

The DSEIR analyzed an impermissibly narrow scope of environmental impacts that included Aesthetics, Land Use and Planning, Noise, Public Services, Transportation and Traffic, and Utilities and Service Systems.<sup>60</sup> Despite the potential for the Project to result in new or substantially more severe significant impacts to Biological Resources, Hydrology and Water Quality, Geology and Soils, Hazards and Hazardous Materials, Population and Housing, and Wildfires, as supported by evidence provided herein and attached, the DSEIR omits the requisite impact analysis and fails to require new mitigation measures to reduce significant impacts in each of these areas to less than significant levels.

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<sup>55</sup> *Id.*

<sup>56</sup> Pub. Res. Code § 21061.

<sup>57</sup> 14 C.C.R. § 15163(b).

<sup>58</sup> *Id.*

<sup>59</sup> *Id.*

<sup>60</sup> DSEIR at 4-2.

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The limited list of impacts assessed in the DSEIR also improperly constrains the alternatives analysis.<sup>61</sup> Although an EIR must ensure that “*all reasonable alternatives* to proposed projects are thoroughly assessed by the responsible official,” the same standard does not apply to a SEIR.<sup>62</sup> Focusing solely on noise and transportation impacts, the DSEIR set forth a cursory alternatives analysis that examined a Reduce Project Alternative in addition to the No Project Alternative, which is statutorily required by CEQA Guidelines Section 15126.6, subdivision (e), and did not meaningfully analyze alternatives that would avoid or less impacts in these other resource areas, as required by CEQA.<sup>63</sup>

But for the reliance on the incorrect legal framework, a new EIR for the Project would have analyzed a greater number of impacts, required new mitigation measures, and set forth an adequate alternatives analysis that addressed the full scope of the Project’s significant impacts. For the foregoing reasons, the City must instead conduct an Initial Study and prepare an EIR for this Project.

#### IV. THE DSEIR FAILS TO ADEQUATELY DESCRIBE THE PROJECT

Even if a SEIR were appropriate (which it is not), the analysis in the DSEIR is inadequate because it fails to accurately describe the full scope of the Project. Pursuant to Sections 15162 and 15163 of the CEQA Guidelines, upon a determination that project modifications, changes in the circumstances under which a project will be undertaken, or new information would result in new significant impacts not identified in the original EIR, or cause a substantial increase in the severity of significant impacts identified in the EIR, then the lead agency has the discretion to prepare a SEIR.<sup>64</sup>

Although a SEIR “need contain only the information necessary to make the previous EIR adequate for the project as revised,”<sup>65</sup> courts have recognized that both SEIRs and EIRs “are subject to the same general procedural and substantive

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<sup>61</sup> *Id.* at 8-2.

<sup>62</sup> *Citizens of Goleta Valley*, 52 Cal. 3d at 564 (“The core of an EIR is the mitigation and alternatives sections.”)

<sup>63</sup> DSEIR at 8-6—8-9; Pub. Res. Code, § 21002.

<sup>64</sup> 14 C.C.R. §§ 15162; 15163.

<sup>65</sup> 14 C.C.R. § 15163(b); *See also Friends of Coll. of San Mateo Gardens*, 1 Cal. 5th at 949 (“The purpose behind the requirement of a subsequent or supplemental EIR ... is to explore environmental impacts not considered in the original environmental document....”)

requirements.”<sup>66</sup> For this DSEIR, as with an EIR, the inquiry is whether the DSEIR “includes enough detail ‘to enable those who did not participate in its preparation to understand and to consider meaningfully the issues raised by the proposed project.’...A prejudicial abuse of discretion occurs if the failure to include relevant information precludes informed decision-making and informed public participation, thereby thwarting the statutory goals of the EIR process.”<sup>67</sup> Insufficient analysis or outright omissions regarding the magnitude of the environmental impact are not substantial evidence questions; instead, “the inquiry is predominantly legal and, ‘[a]s such, it is generally subject to independent review.’”<sup>68</sup>

#### **A. The DSEIR Violates CEQA by Piecemealing its Review of the Project’s Residential Uses**

A project under CEQA means the “whole of an action which has the potential for resulting in either a direct physical change in the environment, or reasonably foreseeable indirect physical change in the environment.”<sup>69</sup> CEQA prohibits segmenting the review of the significant environmental impacts of a project.<sup>70</sup> CEQA mandates “that ‘environmental considerations do not become submerged by chopping a large project into many little ones—each with a minimal potential impact on the environment—which cumulatively may have disastrous consequences.’”<sup>71</sup> Public agencies must construe the project broadly to capture the whole of the action and its environmental impacts.<sup>72</sup>

Before undertaking a project, the lead agency must assess the environmental impacts of all reasonably foreseeable phases of a project and a public agency may not segment a large project into two or more smaller projects in order to mask serious environmental consequences.<sup>73</sup> As the Court of Appeals stated, “[t]he CEQA

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<sup>66</sup> *Friends of Coll. of San Mateo Gardens*, 1 Cal. 5th at 952.

<sup>67</sup> *Golden Door Properties, LLC v. Cty. of San Diego* (2020) 50 Cal. App. 5th 467, 505; *See also Save our Peninsula Comm. v. Monterey Cty. Bd. of Supervisors* (2001) 87 Cal. App. 4th 99, 118 (“The error [in failing to include relevant information in the EIR] is prejudicial ‘if the failure to include relevant information precludes informed decisionmaking and informed public participation, thereby thwarting the statutory goals of the EIR process.’”)

<sup>68</sup> *Id.*

<sup>69</sup> 14 C.C.R. § 15378(a).

<sup>70</sup> *Laurel Heights Improvement Assn.*, 47 Cal. 3d at 396; *See also* Pub. Res. Code § 21002.1(d).

<sup>71</sup> *Id.*; *See also City of Santee v. County of San Diego* (1989) 214 Cal.App.3d 1438, 1452; *Citizens Assn. for Sensible Development of Bishop Area v. County of Inyo* (1985) 172 Cal.App.3d 151, 165.

<sup>72</sup> 14 C.C.R. § 15378.

<sup>73</sup> *See Citizens Assn. for Sensible Development of Bishop Area*, 172 Cal. App. 3d at 165–168.

process is intended to be a careful examination, fully open to the public, of the environmental consequences of a given project, covering the entire project, from start to finish.”<sup>74</sup>

Here, the Project proposes a mixed-use development consisting of commercial, resort, residential, and open space uses.<sup>75</sup> Approximately thirty-six acres of the Project site would be for residential uses and an equivalent acreage would be dedicated to commercial uses.<sup>76</sup> The proposed residential uses are a substantial component of the Project and necessary to achieve the Project Objectives.<sup>77</sup> Nevertheless, the DSEIR omitted a host of information about the reasonably foreseeable proposed residential uses in the Project Description, opting to instead defer the disclosure of these details to an unspecified future date at the time of development plans (e.g., “[g]ross developable acreage and dwelling unit distribution would be determined in conjunction with detailed residential Project development plans through the site plan review process.”).<sup>78</sup> The DSEIR’s reliance on future review of development plans for residential uses amounts to improper piecemealing in violation of CEQA’s requirements. Consideration must be given to the whole of the action in the DSEIR, including the Project’s residential uses.

Residential uses change the nature of the Project and scope of the potentially significant environmental effects. The addition of multi-family dwelling units also triggers different land use obligations on the part of the Applicant, which require separate mitigation under CEQA and local land use codes. Yet, by improperly deferring the analysis of residential uses to future individual review of development plans, the DSEIR fails to adequately analyze the direct, indirect, and cumulative impacts of the entire Project as CEQA requires.<sup>79</sup>

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<sup>74</sup> *Natural Resources Defense Council v. City of Los Angeles* (2002) 103 Cal.App.4th 268; *See also Whittman v. Board of Supervisors* (1979) 88 Cal.App.3d 402 (EIR for an exploratory oil well that failed to analyze the impacts associated with an proposed pipeline was inadequate and violated CEQA).

<sup>75</sup> DSEIR at S-2.

<sup>76</sup> *Id.* at 2-8; S-2.

<sup>77</sup> *See Id.* at S-2, which identifies the following Project Objective: “Address the City’s housing supply needs by providing approximately 700 additional housing units within the City, and allow for a broader range of housing through provision of multi-family units, to support City provision of housing supporting a variety of life stages/market rates.”

<sup>78</sup> *Id.* at 2-8.

<sup>79</sup> *See generally, Bozung*, 13 Cal.3d at 283-84; *City of Santee*, 214 Cal.App.3d at 1452; *Citizens Assn. for Sensible Development of Bishop Area*, 172 Cal.App.3d at 165.

For the foregoing reasons, the DSEIR fails to fully disclose, analyze, and mitigate the Project's potentially significant impacts, and lacks an adequate discussion of alternatives with regards to residential uses.<sup>80</sup> The City must prepare an EIR to fully disclose, analyze, and mitigate the impacts of the current Project, which includes residential uses.

### **B. The DSEIR Fails to Provide an Accurate and Complete Project Description**

The Project Description “is an indispensable element of a valid EIR.”<sup>81</sup> California courts have repeatedly held that “an accurate, stable and finite project description is the *sine qua non* of an informative and legally sufficient EIR.”<sup>82</sup> “A curtailed, enigmatic or unstable project description draws a red herring across the path of public input.”<sup>83</sup> Whether the Project Description complies with CEQA's requirements is a question of whether the agency has abused its discretion and the court's standard of review is *de novo*.<sup>84</sup>

CEQA requires that a project be described with enough particularity that its impacts can be assessed.<sup>85</sup> The Project Description must include the location and boundaries of the proposed project on a detailed map, a list of the project objectives, “[a] general description of the project's technical, economic, and environmental characteristics,” and a brief discussion about the intended use of the EIR.<sup>86</sup> Without a complete project description, the environmental analysis under CEQA is impermissibly limited, thus minimizing the project's impacts and undermining

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<sup>80</sup> E.g., Pub. Resources Code, §21002, 210021.1(a); CEQA Guidelines, §§ 151363, 15121, 15140, 15151 (An EIR is informational document whose purpose is to disclose and mitigate impacts, analyze a reasonable range of alternatives, and select as the project any alternative which can achieve project objectives, but is more protective of the environment, consistent with CEQA's substantive mandate); CEQA Guidelines, § 15378 (project description must include all project components).

<sup>81</sup> *Washoe Meadows Community v. Dept. of Parks & Recreation* (2017) 17 Cal.App.5th 277, 287.

<sup>82</sup> *Stopthemillenniumhollywood.com v. City of Los Angeles* (2019) 39 Cal.App.5th 1, 17; *Communities for a Better Environment v. City of Richmond* (2010) 184 Cal.App.4th 70, 85–89; *County of Inyo*, 71 Cal.App.3d at 193.

<sup>83</sup> *County of Inyo*, 71 Cal.App.3d at 193, 198.

<sup>84</sup> See *Stopthemillenniumhollywood.com*, 39 Cal. App. 5th at 15; *Sierra Club v. County of Fresno* (2018) 6 Cal.5th 502, 513; *Washoe Meadows Community*, 17 Cal.App.5th at 286-287.

<sup>85</sup> 14 CCR § 15124; See *Laurel Heights Improvement Assn.*, 47 Cal.3d at 192-193.

<sup>86</sup> 14 C.C.R. § 15124(a)-(d).

meaningful public review.<sup>87</sup> Accordingly, a lead agency may not hide behind its failure to obtain a complete and accurate project description.<sup>88</sup>

The Project Description in the DSEIR is deficient for two reasons. First, critical details about the proposed residential uses for the Project are improperly omitted. Second, the Project timelines for construction activities and operations are unclear and baseless. The failure to comply with CEQA's informational requirements amounts to a prejudicial abuse of discretion and demands recirculation of the DSEIR.

The DSEIR's incomplete Project Description with regards to residential uses is a fatal flaw affecting the legitimacy of the DSEIR's already limited environmental impacts analysis and corresponding mitigation measures. In *Stoepthemillenniumhollywood.com v. City of Los Angeles*, the court invalidated the EIR upon determining that the EIR failed to set forth "any concrete project proposal, instead choosing concepts and 'impact envelopes' rather than an accurate, stable, and finite project," and that this omission of relevant information was prejudicial.<sup>89</sup> There, the court concluded that the EIR's project description was neither stable nor finite given the failure "to describe the siting, size, mass, or appearance of any building proposed to be built at the project site," instead present[ing] different conceptual scenarios that Millennium or future developers may follow for the development of this site."<sup>90</sup> The court also distinguished the decision in *South of Market Community Action Network v. City and County of San Francisco* in which the court held that the project description contained the requisite information, including "site plans, illustrative massing, building elevations, cross-sections and representative floor plans for both" office space or residential uses.<sup>91</sup> In fact, plaintiffs in *South of Market* did not identify any information missing from the project description.<sup>92</sup> Unlike in *South of Market* and akin to *Stoepthemillenniumhollywood.com*, the DSEIR's Project Description omits a host of information about the proposed residential uses.

Like the deficient EIR in *Stoepthemillenniumhollywood.com*, the DSEIR fails to include any maps or site plans with details about the proposed residential uses.

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<sup>87</sup>*Id.*; See also *Laurel Heights Improvement Assn.*, 47 Cal.3d at 192-193.

<sup>88</sup> *Sundstrom v. County of Mendocino* (1988) 202 Cal.App.3d 296, 311.

<sup>89</sup> *Stoepthemillenniumhollywood.com*, 39 Cal. App. 5th at 20.

<sup>90</sup> *Id.* at 18.

<sup>91</sup> *S. of Mkt. Cmty. Action Network v. City & Cty. of San Francisco* (2019) 33 Cal. App. 5th 321, 332.

<sup>92</sup> *Id.*

Residential areas are not clearly identified on Figure 2-3, “Draft Mixed Use Development Plan,” and the square footage “Project Total” in Figure 2-3 calculates the square footage for only the resort, conference facilities, and approximately eleven (11) commercial buildings.<sup>93</sup> Moreover, none of the Appendices include maps or site plans for residential uses, which seriously undermines the resulting impacts analysis. In fact, some of the Appendices included maps that fail to show residential uses as part of this Project.<sup>94</sup>

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<sup>93</sup> DSEIR at Figure 2-3.

<sup>94</sup> DSEIR, Appendix E at Figure 2-3. Appendix C for Traffic Noise Impact Analysis mentioned using “preliminary conceptual site plans” of residences along southern boundary of project to estimate noise, but this information was not included in the DSEIR or Appendix C. DSEIR 4.3-10; *See also* DSEIR, Appendix C at 11.



LINSOTT  
LAW &  
GREENSPAN  
engineers

HC13145F figures  
Date: 03/12/20

Figure 2-3  
Site Plan  
OCEAN KAMP

The City also repeatedly asked for more information about the Project’s residential uses with no success. In response to the City of Oceanside Engineering Division’s request for greater detail about the proposed residential development and streets on the conceptual plans, the Project Design Consultants explained in a letter dated March 13, 2020 that “[t]he proposed residential development has not been defined at this time, for that reason, the Ocean KAMP Tentative Map is showing the intended residential lots, streets, and backbone utilities that are to service those lots as has been discussed with City Officials.”<sup>95</sup> Additionally, the City previously commented: “Very little information has been provided for the proposed residential

<sup>95</sup> Letter from Greg Shields, Project Design Consultants, to Sergio Madera, City of Oceanside Engineering Division, at 1 (March 13, 2020)(“Exhibit D”).  
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component of the project. The residential component represents a significant proportion of the project and more detail should be provided. Please update the mixed-use development plan document to designate the different residential planning areas (R- 1 - R-6), provide a land use summary to include a dwelling unit cap per planning area, identify potential residential building types, identify development regulations per planning area, and provide design guidelines for the residential component.”<sup>96</sup> The Applicant deferred many of these basic disclosures, stating that “[r]esidential community design guidelines will be provided in a subsequent submittal as part of the residential development plan.”<sup>97</sup> However, in the DSEIR, residential uses are estimated to cover approximately the same acreage as the Project’s commercial uses. As a major component of this Project, the DSEIR must therefore show what types of residences would be built, the number of each, where the residences would be sited, and how they would look.

In addition to the failure to include maps and site plans for the Project’s residential uses, the DSEIR omits a host of basic information about the proposed residential uses in the Project Description, including, but not limited to the following.

- The DSEIR fails to disclose the total square footage for the residential dwelling units.
- The DSEIR estimates that around 400 residential units will be constructed during Phase I of construction activities, but provides no additional detail (e.g., siting, type of residence, square footage, height).<sup>98</sup> The timeline for construction activities is therefore unsubstantiated by the information set forth in the DSEIR.
- The DSEIR omits required information about the building configurations for the Project’s residential uses. The Project Description generally discusses a mix of units but explained that “[s]pecific site layout and product types would be identified as part of the residential development plans proposed for each residential planning area.”<sup>99</sup> Moreover, the DSEIR sets forth a large, theoretical range of units for apartments and senior housing, e.g., ten to 250 apartment units, and generally stated that the floorplans for the

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<sup>96</sup> *Ocean KAMP Mixed-Use Plan Resubmittal – Responses to City ARC Review Letter* at 1 (December 20, 2019)(“ Exhibit E”).

<sup>97</sup> *Id.*

<sup>98</sup> DSEIR at 2-19.

<sup>99</sup> DSEIR at 2-7—2-9 (“Building types *may include* attached or detached townhomes/row homes, apartments, condominiums, and/or senior housing.” (emphasis added)).

condominiums would range “in size and price.”<sup>100</sup> The failure to present a concrete Project proposal severely hinders informed public participation and decision-making.

- In addition to the residential units themselves, each unit would include covered parking in the form of a garage.<sup>101</sup> However, the DSEIR omits important details about this development, including the number of proposed garages and total square footage, which are necessary details to inform the impacts analysis for transportation and traffic, water quality, biological resources, noise, etc.
- The Ocean KAMP Fiscal and Economic Impact Analysis estimates that the Project would serve a residential population of approximately 1,995 persons.<sup>102</sup> The DSEIR fails to include this information or incorporate it in to the impact analysis.
- The DSEIR briefly mentions that the proposed residential units “are expected to be constructed by several home builders with different ownership,” but did not specify which home builders or any additional detail.<sup>103</sup>

The host of information about the residential uses omitted from the Project Description obscures the Project’s purpose and scope. The failure to disclose this information in the DSEIR prejudicially impairs the public’s ability to participate in this CEQA process and therefore amounts to a prejudicial abuse of discretion.

Additionally, the DSEIR fails to articulate a definite and unambiguous Project timeline. With regards to construction activities, the DSEIR’s estimated construction deadline of August of 2023 is unsubstantiated. The DSEIR states that Project construction would be completed in August of 2023 but admits that Phase II of the construction activities “would consist of additional residential neighborhoods to be constructed *according to market demand* following completion of the resort.”<sup>104</sup> The construction of an undefined number of additional residential units during Phase II is thus not tied to a clear construction timeline but is instead dependent on flexible “market demand.” Additionally, the August 2023 target deadline for completing the Project’s construction activities is also inconsistent with statements in Appendix J for the Project’s Air Quality and Greenhouse Gas Technical Report, which assessed construction emissions based on the timeline that assumed the

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<sup>100</sup> *Id.* at 2-9.

<sup>101</sup> *Id.* at 17.

<sup>102</sup> *Ocean KAMP Fiscal and Economic Impact Analysis* (December 19, 2019).

<sup>103</sup> DSEIR at 2-18.

<sup>104</sup> *Id.* at 2-19 (emphasis added).

resort “and a portion of the project residential component would be completed in August 2023.”<sup>105</sup> If only an undisclosed portion of residential units would be constructed by August 2023—rather than all units—then the construction deadline of August of 2023 is inaccurate and an adequate project-level EIR is required. Finally, the timeline set forth in the DSEIR does not specify when recreational and open space areas would be constructed and available for use. Based on the foregoing, the August of 2023 deadline is unsupported and highly suspect.

Regarding Project operations, the DSEIR fails to identify when the Project operations, occupancy, and use would begin. The DSEIR also buries the estimated Project lifespan in the GHG impacts analysis. This information must be included in the Project Description as well.

For the foregoing reasons, the nature and scope of this Project as described in the Project Description, is fundamentally inadequate. These errors constitute a prejudicial abuse of discretion and the DSEIR must be revised and recirculated.

**V. THE DSEIR FAILS TO ESTABLISH A PROPER BASELINE FOR NOISE AND TRANSPORTATION EFFECTS, THEREBY THWARTING AN ADEQUATE IMPACT ANALYSIS**

The existing environmental setting is the starting point from which the lead agency must measure whether a proposed project may cause a significant environmental impact.<sup>106</sup> CEQA defines the environmental setting as the physical environmental conditions in the vicinity of the project, as they exist at the time the notice of preparation is published, from both a local and regional perspective.<sup>107</sup> Describing the environmental setting accurately and completely for each environmental condition in the vicinity of the Project is critical to an accurate, meaningful evaluation of environmental impacts. The courts have clearly stated that, “[b]efore the impacts of a project can be assessed and mitigation measures considered, an [environmental review document] must describe the existing environment. It is only against this baseline that any significant environmental effects can be determined.”<sup>108</sup>

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<sup>105</sup> DSEIR, Appendix J at 13.

<sup>106</sup> See, e.g., *Communities for a Better Env't v. S. Coast Air Quality Mgmt. Dist.* (2010) 48 Cal.4th 310, 316.

<sup>107</sup> 14 C.C.R. §15125(a); *Riverwatch v. County of San Diego* (1999) 76 Cal.App.4th 1428, 1453.

<sup>108</sup> *County of Amador v. El Dorado County Water Agency* (1999) 76 Cal.App.4th 931, 952.

**1. The DSEIR Contains Inadequate Baseline Data to Inform the Analysis Regarding Impacts from Increased Noise Levels**

To establish ambient noise levels at the Project site, the DSEIR relies on a mere two on-site noise measurements (spanning less than 20 minutes each) conducted on a single day: February 28, 2020.<sup>109</sup> Both measurements were recorded within close proximity at the southern edge of the Project site; no other sound levels were taken to inform the DSEIR's noise impacts analysis and no long-term measurement was taken.<sup>110</sup> The DSEIR's methodology to establish the Project's baseline noise levels is thus severely deficient. By way of comparison, the environmental setting for noise in the Pavilion FEIR was based on three devices at three separate locations "within the project site to ascertain existing levels and any variation across the project area," and two additional devices within the existing habitat areas.<sup>111</sup> Moreover, measurement of ambient noise conditions over a period of several days is preferred because a noise environment that is dominated by transport uses, as the Project vicinity is, can change hour to hour and day to day.

Additional noise level measurements to establish an accurate baseline are necessary to ensure a meaningful evaluation of the Project's noise impacts. For example, the DSEIR acknowledged "single-family residences east and northwest of the Project site" as existing "Noise Sensitive Land Uses" ("NSLUs"), yet no noise level measurements were taken from these sensitive receptor locations to inform the baseline.<sup>112</sup> Moreover, sensitive wildlife habitat along San Luis Rey River should have been identified as an NSLU in the DSEIR and noise level measurements should have been taken near these sensitive uses. These omissions in the DSEIR are particularly egregious given that the Pavilion FEIR concluded that the project's construction noise could impact nearby sensitive habitat and nesting birds.<sup>113</sup>

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<sup>109</sup> DSEIR at 4.3-3. It must also be noted that the DSEIR lacks any discussion or analysis of the fact that the measurements were taken on February 28, 2020, during the COVID-19 global pandemic. The reduction in traffic volume corresponds with a reduction in traffic noise, which is not addressed or adjusted for in the DSEIR's analysis.

<sup>110</sup> *Id.*

<sup>111</sup> City of Oceanside, *Appendices to Draft Environmental Impact Report for the Pavilion at Oceanside; H. Noise Report; Acoustical Site Assessment* at 8 (February 29, 2008 (revised)).

<sup>112</sup> DSEIR at 4.3-2.

<sup>113</sup> *Id.* at 4.3-1.

For example, the loudest hourly sound level within the habitat area was found to potentially be as high as 75.7 dBA, which is above the wildlife habitat noise limit of 60 dBA, thus necessitating mitigation.<sup>114</sup> Here, however, in failing to take ambient baseline noise measurements from sensitive wildlife areas, the DSEIR's baseline noise measurements do not establish ambient noise levels for these areas. As a result, the DSEIR fails to accurately assess the increase in ambient noise levels at those receptors during construction and operations.

Finally, the baseline noise levels recorded on the Project site on February 28, 2020, were 72.5 dBA LEQ and 71.9 dBA LEQ, respectively.<sup>115</sup> These sound levels are significantly higher than the noise measurements documented on February 6, 2007 for the previous project; in 2007, the hourly average sound levels (or "Leq-h") recorded over the monitoring period ranged from 50.5 to 59.9 dBA.<sup>116</sup> The substantial increase in noise levels is likely due to changed traffic conditions since 2008.<sup>117</sup> Now, as compared to over ten years ago at the time of the Pavilion FEIR, the existing noise levels around the Project site are much higher such that even the slightest increase in noise levels from the Project would result in a significant impact.

## **2. The Baseline Against Which to Determine Traffic/Transportation Impacts is Improper**

The baseline identified in a CEQA document must not "include hypothetical conditions, such as those that might be allowed, but have never actually occurred, under existing permits or plans, as the baseline."<sup>118</sup> Here, the DSEIR concludes that the Project would reduce Regional VMT by 917,756 and would therefore result in a less than significant transportation impact for the Project's retail/commercial uses.<sup>119</sup> However, as supported by the attached expert comments in Exhibit B, "this finding is implausible unless the 2020 Baseline without Project run of the Model included the encoding for a much greater use on the Project site, such as assuming development of the previously proposed The Pavilion at Oceanside Project or the

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<sup>114</sup> *Id.*

<sup>115</sup> *Id.* at 4.3-3.

<sup>116</sup> City of Oceanside, *Appendices to Draft Environmental Impact Report for the Pavilion at Oceanside; H. Noise Report; Acoustical Site Assessment* at 18 (February 29, 2008 (revised)).

<sup>117</sup> DSEIR at 4.3-1.

<sup>118</sup> 14 C.C.R. § 15125(1)(3).

<sup>119</sup> DSEIR at 4.5-11.

Pavilion at Oceanside Reduced Project Draft Subarea Plan Alternative.”<sup>120</sup> Inclusion of the previously approved, but never constructed, Pavilion project in the baseline impermissibly discounts the Project’s actual VMT against VMT for a project that was never even built. CEQA does not permit such a baseline.<sup>121</sup>

The facts and decision in *Woodward Park* are instructive here. There, the court held that the EIR erroneously used a “hypothetical allowable condition” as the baseline, i.e., 694,000–square–foot office park and retail development that was never built but was the maximum-size development allowable on the project site under existing plan and zoning designations.<sup>122</sup> The proposed project proposed to build a smaller, 477,000–square–foot office park and shopping center on a vacant lot, but the EIR for the most part compared the proposed project’s impacts on traffic congestion and air pollution with the larger, hypothetical development rather than with the vacant lot or the “existing physical situation.”<sup>123</sup> The court determined that this caused the EIR to understate the proposed project’s true impacts on traffic congestion and air pollution.<sup>124</sup> The court observed that the public will “naturally assume” an EIR will “compare what will happen if the project is built with what will happen if the site is left alone,” rather than compare the project’s impacts with a hypothetical project or condition.<sup>125</sup> Accordingly, the court found the use of the larger hypothetical development as the baseline to be misleading.<sup>126</sup>

The same reasoning must be applied here. The DSEIR relies on a theoretical baseline based on conditions that have not occurred, even if previously permitted. By overstating the baseline, the DSEIR consequently understates the Project’s transportation impacts. To address these deficiencies, the DSEIR must be revised and recirculated.

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<sup>120</sup> Expert comments by Daniel Smith at 2 (September 27, 2021)(“Exhibit B”)(hereinafter “Smith”).

<sup>121</sup> See *Hollywoodians Encouraging Rental Opportunities (HERO) v. City of Los Angeles et al.* (2019) 37 Cal.App.5th 768 (baseline for CEQA review was vacant building which was no longer part of rental market, rather than building’s prior status as occupied apartment building).

<sup>122</sup> *Woodward Park Homeowners Assn., Inc. v. City of Fresno* (2007) 150 Cal. App. 4th 683, 697-698, as modified on denial of reh’g (May 11, 2007).

<sup>123</sup> *Id.* at 692, 697-698, 707-708.

<sup>124</sup> *Id.* at 708-709.

<sup>125</sup> *Id.* at 707.

<sup>126</sup> *Id.* at 691.

**VI. THE DSEIR FAILS TO ADEQUATELY DISCLOSE AND MITIGATE THE PROJECT'S NEW AND MORE SEVERE IMPACTS THAN THOSE ANALYZED IN THE PAVILION FEIR**

A Supplemental EIR, like an EIR, must fully disclose all potentially significant impacts of a Project, and implement all feasible mitigation to reduce those impacts to less than significant levels.<sup>127</sup> In particular, a Supplemental EIR is inadequate, and a new or subsequent EIR is required where substantial changes from the prior project require major revisions of the previous EIR due to the involvement of new significant effects or a substantial increase in the severity of previously identified effects, where there is new information demonstrating that the Project will have new and more severe effects than analyzed in the Pavilion FEIR, or where new mitigation measures are available to further lessen significant effects that were not available or rejected when the original EIR was prepared.<sup>128</sup> In each case, the lead agency's significance determination regarding each impact area must be supported by accurate scientific and factual data.<sup>129</sup> An agency cannot conclude that an impact is less than significant unless it produces rigorous analysis and concrete substantial evidence justifying the finding.<sup>130</sup>

The failure to provide information required by CEQA is a failure to proceed in the manner required by CEQA.<sup>131</sup> Challenges to an agency's failure to proceed in the manner required by CEQA, such as the failure to address a subject required to be covered or to disclose information about a project's environmental effects or alternatives, are subject to a less deferential standard than challenges to an agency's factual conclusions.<sup>132</sup> In reviewing challenges to an agency's approval of an EIR based on whether the agency utilized the appropriate processes, the court will "determine de novo whether the agency has employed the correct procedures, 'scrupulously enforcing all legislatively mandated CEQA requirements.'"<sup>133</sup> Even when the substantial evidence standard is applicable, reviewing courts will not "uncritically rely on every study or analysis presented by a project proponent in

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<sup>127</sup> *Friends of Coll. of San Mateo Gardens*, 1 Cal. 5th at 696.

<sup>128</sup> Pub. Resources Code § 21166; 14 CCR § 15162(a).

<sup>129</sup> 14 CCR § 15064(b).

<sup>130</sup> *Kings Cty. Farm Bur.*, 221 Cal.App.3d at 732.

<sup>131</sup> *Sierra Club v. State Bd. Of Forestry* (1994) 7 Cal.4th 1215, 1236.

<sup>132</sup> *Vineyard Area Citizens for Responsible Growth, Inc. v. City of Rancho Cordova* (2007) 40 Cal.4th 412, 435.

<sup>133</sup> *Id.*, *Madera Oversight Coal., Inc. v. County of Madera* (2011) 199 Cal. App. 4th 48, 102.  
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support of its position. A clearly inadequate or unsupported study is entitled to no judicial deference.”<sup>134</sup>

**A. The DSEIR Fails to Disclose New and Potentially More Severe Noise Impacts from Airport-Related Noise and Noise Levels for Residential Interior and Exterior Uses are Not Mitigated to Less than Significant Levels**

This Project, unlike the former project evaluated in the Pavilion FEIR, involves new residences not only along major travel routes like Mission Avenue and State Route 76 but also within close proximity to the Oceanside Municipal Airport, which is approximately 0.5 mile west of the Project site.<sup>135</sup> The DSEIR recognizes that “the introduction of residential land uses [add] noise attenuation considerations,” but nevertheless focused solely on traffic-related noise, failing to analyze or mitigate this new and more severe noise impacts on residential sensitive receptors.<sup>136</sup>

Airport-related noise impacts should have been analyzed in the DSEIR as well with respect to future on-site residential land uses. The failure to analyze airport-related noise impacts could result in a potentially undisclosed significant noise impact for which no mitigation measures have been provided. The airport-related noise analysis in the Pavilion FEIR is also not instructive as to this Project because the prior project did not include a residential component or any residential mixed-use component. For example, buyer notification requirements, such as notifications required under the Business and Professions Code, were not considered for the former project because it solely involved commercial retail leases, as explained in responses to comments on the Pavilion FEIR.<sup>137</sup> The complete failure to analyze airport-related noise impacts in the DSEIR is a major deficiency and may lead to an undisclosed significant noise impact.

In addition to undisclosed, potentially significant noise impacts, the DSEIR fails to mitigate on-site traffic noise exposure to less than significant levels. Interior and exterior noise levels for residences located along the southern boundary of the Project site were anticipated to exceed the 65-CNEL limit for exterior noise levels

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<sup>134</sup> *Berkeley Keep Jets Over the Bay Com.*, 91 Cal.App.4th at 1355.

<sup>135</sup> DSEIR, Appendix C at 4.

<sup>136</sup> DSEIR at 4.3-1; 4.2-7.

<sup>137</sup> Pavilion FEIR at B-16.

and 45-CNEL limit for interior noise levels under future traffic conditions in the DSEIR.<sup>138</sup> The DSEIR thus concludes that the Project's impacts associated with exposure to interior and exterior noise levels would be significant.<sup>139</sup>

Recommendation 5 in the Noise Element of the City's General Plan states that "[a]pproval of any project in the City where the health of future residents or occupants may be adversely affected by noise associated with the site should be taken to reduce or abate the noise effects or should be denied approval and recommended for an alternate site (example – a new rest home or hospital should not be constructed in areas subjected to noise levels 65 dBA or higher)."<sup>140</sup> As applied here, the Project's significant noise impacts exceed thresholds of significance and would therefore likely adversely affect the health of future residents and occupants such that adequate measures to reduce or abate these noise impacts would be necessary, especially to comply with Recommendation 5. This is a new significant noise impact that was not analyzed in the Pavilion FEIR and is not analyzed or mitigated in the DSEIR.<sup>141</sup>

The DSEIR reasons that the noise impacts could be reduced to less than significant levels with Mitigation Measures ("MM") NOI-1 and MM NOI-2.<sup>142</sup> These mitigation measures, however, improperly defer additional noise analysis and applicable noise attenuation measures to after building plan information becomes available.<sup>143</sup> The DSEIR explains that additional analysis will be conducted, but only along the southern boundary of the Project site.<sup>144</sup>

A new or subsequent EIR is also required to describe additional feasible measures that could minimize significant adverse impacts.<sup>145</sup> An EIR may not defer the formulation of mitigation measures to a future time, but mitigation measures may specify performance standards which would mitigate the project's significant effects and may be accomplished in more than one specified way.<sup>146</sup> "Generally, '[i]t

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<sup>138</sup> DSEIR at 4.3-9—4.3-10.

<sup>139</sup> *Id.* at 4.3-9—4.3-10.

<sup>140</sup> *Id.* at 4.3-5.

<sup>141</sup> *Comtys. for a Better Env't v. Cal. Resources Agency* (2002) 103 Cal.App.4th 98, 110-111 (when impact exceeds CEQA significance threshold, agency must disclose in the EIR that the impact is significant); *Schenck v. County of Sonoma* (2011) 198 Cal.App.4th 949, 960; *CBE v. SCAQMD*, 48 Cal.4th at 327 (impact is significant because exceeds "established significance threshold").

<sup>142</sup> *Id.*

<sup>143</sup> *Id.*

<sup>144</sup> *Id.*

<sup>145</sup> 14 C.C.R. § 15126.4(a)(1).

<sup>146</sup> *Id.* at (a)(1)(B).

is improper to defer the formulation of mitigation measures until after project approval; instead, the determination of whether a project will have significant environmental impacts, and the formulation of measures to mitigate those impacts, must occur before the project is approved.”<sup>147</sup> “[A]n exception to this general rule applies when the agency has committed itself to specific performance criteria for evaluating the efficacy of the measures to be implemented in the future, and the future mitigation measures are formulated and operational before the project activity that they regulate begins.”<sup>148</sup> However, “[i]mpermissible deferral of mitigation measures occurs when [the agency] puts off analysis or orders a report without either setting standards or demonstrating how the impact can be mitigated in the manner described....”<sup>149</sup>

The measures proposed to mitigate the Project’s admittedly significant on-site traffic noise impacts improperly defer the required analysis and mitigation to an unspecified date when specific building plan information is made available. The omission of necessary information about the Project’s proposed residential uses, e.g., location, size, and design, undermines the analysis in the DSEIR and has rendered the DSEIR’s conclusion that noise impacts can be mitigated to less than significant levels entirely unsubstantiated. Due to the deferred analysis and mitigation for this Project, it cannot be determined whether the proposed mitigation measures will adequately mitigate the impacts from on-site traffic noise exposure.

A new or subsequent EIR must be prepared to set forth the requisite information about the Project’s residential uses, including location, design, and size, to inform the proposed mitigation measures and the analysis regarding any associated environmental impacts. As currently proposed, noise impacts remain significant and unmitigated.

**B. The Project Would Result in a New and More Severe Transportation Impact that Remains Unmitigated in the DSEIR**

“The core of an EIR is the mitigation and alternatives sections.”<sup>150</sup> CEQA requires the adoption of feasible mitigation measures that would substantially

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<sup>147</sup> *Save the Agoura Cornell Knoll v. City of Agoura Hills* (2020) 46 Cal. App. 5th 665, 686–87, *reh’g denied* (Apr. 10, 2020), *review denied* (June 24, 2020).

<sup>148</sup> *Id.*

<sup>149</sup> *Preserve Wild Santee v. City of Santee* (2012) 210 Cal.App.4th 260, 280-281.

<sup>150</sup> *Citizens of Goleta Valley*, 52 Cal.3d at 564.

lessen or avoid otherwise significant adverse environmental impacts.<sup>151</sup> Legally adequate mitigation measures include: “(a) Avoiding the impact altogether by not taking a certain action or parts of an action. (b) Minimizing impacts by limiting the degree or magnitude of the action and its implementation. (c) Rectifying the impact by repairing, rehabilitating, or restoring the impacted environment. (d) Reducing or eliminating the impact over time by preservation and maintenance operations during the life of the action.”<sup>152</sup> Unrealistic mitigation measures, similar to unrealistic project alternatives, do not contribute to a useful CEQA analysis.”<sup>153</sup>

a. The DSEIR Fails to Analyze Potential Conflicts with the Circulation Element of the City’s General Plan

The DSEIR incorrectly concludes that the Project would be consistent with the City’s General Plan Circulation Element.<sup>154</sup>

Policy 3.20 of the City’s General Plan Circulation Element requires necessary off-site improvements “[i]f the location and traffic generation of a proposed development will result in congestion on major streets or failure to meet the LOS D threshold....”<sup>155</sup> In relation to Policy 3.20, the General Plan also states that “[a]ny proposed development project that affects a street segment that already operates, or is projected to operate worse than LOS D, regardless of peak hour analysis, the developer shall propose, prepare and provide mitigation measure(s) for the City to review.”<sup>156</sup> The impacts analysis in the DSEIR, however, fails to disclose and discuss the findings in the Local Transportation Study in Appendix D, which identifies nine intersections and two road segments where the Project and cumulative traffic would “contribute to operational deficiencies....”<sup>157</sup> “Readers of an EIR should not be required to ‘ferret out an unreferenced discussion in [related material]....’ The data in an EIR must not only be sufficient in quantity, it must be presented in a manner calculated to adequately inform the public and decision makers, who may not be previously familiar with the details of the project. ‘[I]nformation ‘scattered here and there in EIR appendices,’ or a report ‘buried in an

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<sup>151</sup> Pub. Res. Code § 21002.

<sup>152</sup> 14 C.C.R. § 15370(a)-(d).

<sup>153</sup> *Cleveland Nat’l Forest Found. v. San Diego Assn. of Governments* (2017) 17 Cal. App. 5th 413, 433.

<sup>154</sup> DSEIR 4.5-8—4.5-9.

<sup>155</sup> *Id.* at 4.5-5.

<sup>156</sup> *Id.*

<sup>157</sup> DSEIR, Appendix D at i.  
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appendix,' is not a substitute for 'a good faith reasoned analysis....'"<sup>158</sup> Here, the DSEIR improperly omits an adequate discussion of the relevant findings in the Local Transportation Study in Appendix D.

Moreover, Table 13-1 in the Local Transportation Study recommends improvements "to reduce the Project's effect on the locations [] to less than substantial."<sup>159</sup> However, the improvements for six of these intersections (i.e., would be made by making fair share payments to State Highway 76 intersections under Caltrans jurisdiction and the Project is responsible for the full cost of the improvements for the remaining three intersections.<sup>160</sup> As discussed in Mr. Smith's expert comments, "[n]either the City nor the applicant can guarantee if or when Caltrans will carry out the improvements or allow them to be constructed."<sup>161</sup> Additionally, according to Mr. Smith, the intersections of SR 76 with Foussat Road, Douglas Drive, and Rancho Del Oro Drive would still fail to comply with General Plan standards even with the proposed improvements.<sup>162</sup> For these reasons, Mr. Smith concludes that these six State Highway intersections would result in significant and unavoidable impacts.

b. The DSEIR Fails to Disclose and Analyze New and More Severe Cumulative Impacts

As detailed in the comments attached hereto by Mr. Smith, the DSEIR fails to conduct a long-term analysis of cumulative traffic impacts to determine conformance with the City's General Plan Circulation Element.<sup>163</sup> Instead, the DSEIR improperly limits the analysis of the Project's current Level of Service ("LOS") impacts to Year 2020.<sup>164</sup> Mr. Smith acknowledges that Appendix D claimed that the Project was analyzed to Year 2035 in SANDAG Model Series 12, but concludes this assertion was false.<sup>165</sup> This is because the SANDAG Model Series 12 results were not even available when the Pavilion FEIR was prepared in 2008.<sup>166</sup>

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<sup>158</sup> *Banning Ranch Conservancy v. City of Newport Beach* (2017) 2 Cal. 5th 918, 941.

<sup>159</sup> *Id.* at ii.

<sup>160</sup> Smith at 7.

<sup>161</sup> *Id.*

<sup>162</sup> *Id.*

<sup>163</sup> *Id.*

<sup>164</sup> *Id.*

<sup>165</sup> *Id.*

<sup>166</sup> *Id.*

Furthermore, Mr. Smith explains that the reference to the Series 12 Model run because the 2035 transportation network in the Series 12 SANDAG Model is unsupported because it assumes completion of improvements to State Route 76 from I-5 to Melrose Drive.<sup>167</sup> However, this project is no longer included in the Regional Transportation Plan and may never be completed.<sup>168</sup> As such, “reference to the Series 12 Model runs is irrelevant and misleading.”<sup>169</sup>

Finally, the distribution of Project traffic in the Local Transportation Study in Appendix D relies upon the trip distribution assumed in the 2008 Pavilion FEIR.<sup>170</sup> Mr. Smith explains that the problem with reliance on the former project’s Traffic Impact Analysis is that the former project did not include residential or resort components, which the current Project does.<sup>171</sup> These components would have very different trip patterns as compared to commercial uses only.<sup>172</sup> As summarized by Mr. Smith, “[t]his, and the issue of why the DSEIR would rely on an obsolete trip distribution substantially irrelevant to some of the Project’s currently proposed land uses, and one that is inconsistent from the SANDAG Series 13 Model relied upon in the DSEIR’s VMT analysis, demonstrates potentially new significant impacts from this Project that were inadequately analyzed in the DSEIR.”<sup>173</sup>

c. The Project’s New and More Severe Transportation Impacts are Not Likely to be Mitigated to Less than Significant Levels By the DSEIR

The Project’s VMT per capita for residential uses exceeds the significance threshold of 14.96 VMT per resident and is therefore disclosed as a significant impact in the DSEIR.<sup>174</sup> To mitigate this significant impact, the DSEIR proposes to implement the design guidelines formulated by the California Air Pollution Control Officers Association (“CAPCOA”).<sup>175</sup> Based on the theoretical requirements of MM TRA-1, the DSEIR concludes that residential VMT per capita would be reduced by 11.7 percent, which exceeds the Project’s 6.68 percent VMT impact and is sufficient

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<sup>167</sup> *Id.* at 8.

<sup>168</sup> DSEIR, Appendix D at 48.

<sup>169</sup> Smith at 8.

<sup>170</sup> *Id.*

<sup>171</sup> *Id.*

<sup>172</sup> *Id.*

<sup>173</sup> *Id.*

<sup>174</sup> DSEIR at 4.5-10.

<sup>175</sup> *Id.* at 4.5-12.

to reduce the Project's residential VMT impact to less than significant levels.<sup>176</sup> For the reasons set forth in detail herein and in the attached expert report by Mr. Daniel T. Smith, P.E., substantial evidence does not demonstrate that MM TRA-1 is capable of mitigating the VMT impacts to less than significant.<sup>177</sup>

Mr. Smith concludes that the reduction in average VMT per capita resident resulting from MM TRA-1 is likely substantially less than the purported 11.7 percent reduction assumed in the DSEIR.<sup>178</sup> Mr. Smith criticizes the legitimacy of the assertion in the DSEIR that the density of intersections per square mile in a mere 0.143 square miles could alter the average VMT of residents traveling between that area and all of the SANDAG region.<sup>179</sup> Although Mr. Smith acknowledges that the mode of transportation within the Project site may be altered by the subject metric, the DSEIR fails to demonstrate how MM TRA-1 would reduce the average VMT per capita resident by 11.7 percent.<sup>180</sup>

MM TRA-1 is the only mitigation measure set forth in the DSEIR to address the significant transportation impacts. However, as discussed in Mr. Smith's comments, the DSEIR also sets forth a host of non-enforceable "trip reduction strategies as Project features and conditions of approval, with implementation required at 50 percent occupancy."<sup>181</sup> According to Mr. Smith, the effectiveness of these features and conditions "are both unquantified and dubious."<sup>182</sup>

The DSEIR fails to show how the vague and unenforceable trip reduction strategies would reduce the Project's significant transportation impacts to less than significant levels. The proposed crosswalk across Benet Road at Airport Road is not required and more importantly, would be irrelevant to the Project since Airport Road does not even directly connect to the Project site.<sup>183</sup> More direct connections to the San Luis Rey River Trail exist from the Project site via Foussat Road or Ocean Point Road.<sup>184</sup> Finally, Mr. Smith questions the feasibility of implementing this trip

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<sup>176</sup> *Id.*

<sup>177</sup> *See* Smith at 2-6.

<sup>178</sup> *Id.* at 3.

<sup>179</sup> *Id.*

<sup>180</sup> *Id.*

<sup>181</sup> DSEIR at 4.5-12.

<sup>182</sup> Smith at 4.

<sup>183</sup> *Id.*

<sup>184</sup> *Id.*

reduction strategy given the limited spacing of the intersection at Benet Road with Airport Road.<sup>185</sup>

Reductions in VMT resulting from proposed ride sharing opportunities are also not supported by substantial evidence in the DSEIR. As Mr. Smith notes, the DSEIR omits any evidence “to demonstrate that ridesharing information provided through an organization of a relatively small number of neighbors would add any meaningful number of actual ride-shares to the numbers formed through pooling resources available at the employment end of people’s commutes.”<sup>186</sup>

Finally, the DSEIR suggests offering information about on-site transit opportunities as a trip reduction strategy without providing any analysis about how this information would reduce VMT.<sup>187</sup> As written, this proposed strategy is vague and ambiguous, and the added value is highly suspect, as explained in Mr. Smith’s expert comments.<sup>188</sup> Moreover, while the former project included a transit center within the project area, this Project does. This is a substantial change in the Project that likely affects the transportation impacts.<sup>189</sup>

For the foregoing reasons, the DSEIR fails to provide substantial evidence to demonstrate a quantitative reduction in VMT, and therefore fails to mitigate the Project’s significant VMT to less than significant levels.

**C. The DSEIR Fails to Adequately Disclose and Mitigate the Project’s New and More Severe Construction and Operational Air Quality Impacts**

Under CEQA, a project has significant impacts if it “[v]iolate[s] any air quality standard or contribute[s] substantially to an existing or projected air quality violation.”<sup>190</sup> Here, the DSEIR sets forth a cursory analysis of the Project’s air quality impacts upon determining that any impacts would be consistent with the impacts previously analyzed in the Pavilion FEIR. For the reasons set forth herein and supported by attached expert comments by SWAPE, the DSEIR severely underestimates the Project’s construction and operational air emissions, thereby

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<sup>185</sup> *Id.*

<sup>186</sup> *Id.*

<sup>187</sup> DSEIR at 4.5-13.

<sup>188</sup> Smith at 5.

<sup>189</sup> DSEIR at 2-5.

<sup>190</sup> CEQA Appendix G.

failing to accurately determine the significance of the impacts on air quality and public health.

a. The DSEIR's Air Quality Analysis Relies on Unsubstantiated Input Parameters and an Updated Analysis Indicates a Potentially Significant Air Quality Impact

The DSEIR relies on unsubstantiated input parameters to estimate the Project's air emissions. Upon an in-depth review of the DSEIR, our experts found that several of the values inputted into the DSEIR's CalEEMod emissions modeling were not consistent with information disclosed elsewhere in the DSEIR.<sup>191</sup> As a result, the DSEIR underestimated the Project's construction and operational emissions, which are, in fact, significant.

The DSEIR relies on emissions calculated with CalEEMod.2016.3.2.<sup>192</sup> The provides recommended default values, but if specific project information is available, the default values can be swapped for project-specific values as long as such changes are justified by substantial evidence.<sup>193</sup> A project's construction and operational emissions are then calculated based on the values inputted into the model.<sup>194</sup>

Here, our experts found that several model inputs were not consistent with information disclosed in the DSEIR.<sup>195</sup> First, the DSEIR underestimates the land use size for "Hotel" and omitted land use values for the Project's commercial and conference space components.<sup>196</sup> As discussed by SWAPE, "the proposed hotel space was underestimated by 50,500-SF," which "presents an issue, as the land use size feature is used throughout CalEEMod to determine default variable and emission factors that go into the model's calculations."<sup>197</sup> For example, the square footage of a Project-specific land use may be inputted to calculate the number of walls to be painted, which correlates to VOC emissions generated by architectural coatings.<sup>198</sup> Given the underestimated floor surface area for "Hotel" in the DSEIR's Air Quality

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<sup>191</sup> See Expert comments by SWAPE (September 29, 2021)(" Exhibit A")(hereinafter "SWAPE").

<sup>192</sup> DSEIR at 5.1-4.

<sup>193</sup> SWAPE at 3.

<sup>194</sup> *Id.*

<sup>195</sup> *Id.*

<sup>196</sup> DSEIR, Appendix I at 59, 101.

<sup>197</sup> SWAPE at 4.

<sup>198</sup> *Id.*

and Greenhouse Gas Technical Report, our experts conclude that “the model underestimates the Project’s operational emissions and should not be relied upon to determine Project significance.”<sup>199</sup>

Second, several reductions to the default architectural and area coating emission factors are unsubstantiated in the DSEIR’s Air Quality and Greenhouse Gas Technical Report.<sup>200</sup> Specifically, the architectural and area coating emission factors were each reduced from the default value of 250- to 50-grams per liter (“g/L”).<sup>201</sup> The purported justification for these changes was the “50 g/L VOC limit per San Diego Air Pollution Control District (“SDAPCD”) rule 67.0.1, effective 1/01/2022.”<sup>202</sup> However, SWAPE determined that these justifications are insufficient and therefore the reductions remain unsubstantiated. SWAPE explains that the DSEIR fails to require the Project to utilize flat or non-flat paint coatings, for which specific VOC content limits were assumed in the Report. Therefore, neither SWAPE nor the public can verify the revised architectural and area coating emission factors used in the DSEIR’s analysis.<sup>203</sup> Additionally, SDAPCD Rule 67.01 alone does not substantiate reductions to the default coating values because information is needed regarding what category of coating will be used.<sup>204</sup> SWAPE thus concludes that “by including unsubstantiated reductions to the default architectural and area coating emission factors, the model likely underestimates the Project’s construction-related and operational ROG/VOC emissions and should not be relied upon to determine the significance of the impacts on air quality and public health.”<sup>205</sup>

Third, our experts identified numerous unsubstantiated changes to the individual construction phase lengths in the model.<sup>206</sup> Specifically, “the grading phase length was decreased by approximately 15%, from the default value of 155 to 132 days; the paving phase length was decreased by approximately 63%, from the default value of 110 to 41 days; the building construction phase was decreased by approximately 75%, from the default value of 1,550 to 393 days; and the architectural coating phase was increased by approximately 20%, from the default

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<sup>199</sup> *Id.*

<sup>200</sup> DSEIR, Appendix I at 61, 102.

<sup>201</sup> *Id.*

<sup>202</sup> *Id.* at 60, 102.

<sup>203</sup> SWAPE at 5.

<sup>204</sup> *Id.*

<sup>205</sup> *Id.*

<sup>206</sup> *Id.* at 5-6.

value of 110 to 132 days.”<sup>207</sup> However, neither the DSEIR nor the related Appendices support these changes to the construction phase lengths, especially where the DSEIR only provides the construction end date of August 2023.<sup>208</sup> Additionally, by altering the construction timelines, “construction emissions are improperly spread out over a longer period of time for some phases, but not others.”<sup>209</sup> As a result, SWAPE concludes that the DSEIR’s emissions modeling may have underestimated the Project’s construction-related emissions for some phases and is therefore inadequate to assess the significance of the Project’s construction emissions.<sup>210</sup>

Fourth, the CalEEMod output files show that the model included several changes to the default energy use values, including default energy use values associated with natural gas.<sup>211</sup> Although the Project proposes to “limit[]the use of natural gas to food and beverage buildings, the fitness center, and overhead gas-fired heaters,” the DSEIR estimates that the anticipated natural gas energy use is 10,139,461 kilo British thermal units per square feet (“KBTU/SF”).<sup>212</sup> Thus, SWAPE explains that it was improper for the model to change the default energy use value for natural gas to zero.<sup>213</sup> As discussed by SWAPE in the attached expert comments, “[t]his presents an issue, as CalEEMod uses the energy use values to calculate the Project’s emissions associated with non-hearth natural gas usage. By including unsubstantiated reductions to the natural gas energy use values, the model may underestimate the Project’s energy-related operational emissions and should not be relied upon to determine Project significance.”<sup>214</sup>

Fifth, the Project model included three mitigation measures for construction: (1) water exposed area, (2) water unpaved roads, and (3) reduce vehicle speed on unpaved roads.<sup>215</sup> The model also included a fifteen miles per hour (“MPH”) vehicle speed limit and a twelve percent minimum moisture content for unpaved roads.<sup>216</sup> No justification is provided for these changes to the model defaults in the “User

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<sup>207</sup> *Id.* at 6.

<sup>208</sup> *Id.* at 27.

<sup>209</sup> *Id.*

<sup>210</sup> *Id.*

<sup>211</sup> DSEIR, Appendix I at 61, 103.

<sup>212</sup> DSEIR at 5.2-3—5.2-4.

<sup>213</sup> SWAPE at 9.

<sup>214</sup> *Id.*

<sup>215</sup> DSEIR, Appendix I at 61, 103.

<sup>216</sup> *Id.*

Entered Comments & Non-Default Data.”<sup>217</sup> The DSEIR generally acknowledges that the Project would comply with the SDAPCD Rule 55 and the associated Best Management Practices (“BMPs”), but as SWAPE explains in their comment letter, compliance with Rule 55 and incorporation of specific BMPs for dust control are insufficient justifications to permit including construction-related mitigation measures in the model.<sup>218</sup> Thus, SWAPE concludes that “[b]y including several construction-related mitigation measures without properly committing to their implementation, the model may overestimate the mitigation measures’ ability to offset the Project’s potentially significant construction-related emissions and should not be relied upon to determine the significance of impacts on air quality.”<sup>219</sup>

Sixth, the DSEIR improperly includes renewable energy-related mitigation measures in the model DSEIR without proposing to incorporate these energy-conserving measures into the overall project design.<sup>220</sup> Project design features (“PDFs”) are not the same as enforceable mitigation measures and therefore SWAPE concludes that if the “operational measure included in the model is not formally included as a mitigation measure, we cannot guarantee that it would be implemented, monitored, and enforced on the Project site.”<sup>221</sup> Accordingly, the model may underestimate the Project’s operational emissions and is not reliable to determine the Project’s potentially significant impacts to air quality.<sup>222</sup>

Based on the many omissions and inaccuracies described above, it is clear that the DSEIR underestimates the Project’s construction and operational emissions and fails to adequately analyze the Project’s potentially significant impacts on air quality. The DSEIR therefore subverts the purpose of CEQA to provide sufficient information to allow for informed decision-making and public participation.<sup>223</sup>

As detailed in the attached expert report by SWAPE, an updated CalEEMod model using Project-specific information included in the DSEIR provides a better understanding of the Project’s construction-related and operational emissions.<sup>224</sup>

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<sup>217</sup> SWAPE at 10.

<sup>218</sup> *Id.*

<sup>219</sup> *Id.* at 10-11.

<sup>220</sup> *Id.* at 11.

<sup>221</sup> *Id.*

<sup>222</sup> *Id.*

<sup>223</sup> See *Lotus v. Dep’t of Transportation* (2014) 223 Cal. App. 4th 645, 652.

<sup>224</sup> *Id.* at 12.

The updated models utilized by our experts “included the correct hotel land use size; proportionally increased the individual construction phase lengths to match the proposed construction duration; and excluded the incorrect construction-related and operational mitigation measures.”<sup>225</sup> As shown below, the updated analysis demonstrates that “construction-related VOC and NOX emissions, as well as operational PM10 and PM2.5 emissions, estimated by SWAPE, increase by approximately 1,778%, 100%, 1,235%, and 444%, respectively, and exceed the applicable SDAPCD significance thresholds.”<sup>226</sup>

Model	Construction		Operational	
	VOC	NO <sub>x</sub>	PM <sub>10</sub>	PM <sub>2.5</sub>
DSEIR	63.6	138.4	81.3	22.6
SWAPE	1,194.1	277.3	1,085.1	122.9
% Increase	1,778%	100%	1,235%	444%
SDAPCD Regional Threshold (lbs/day)	<b>137</b>	<b>250</b>	<b>100</b>	<b>67</b>
<i>Threshold Exceeded?</i>	Yes	Yes	Yes	Yes

In conclusion, as confirmed by the updated modeling performed by our experts, this Project would result in new and more severe air quality impacts than analyzed in the Pavilion EIR and which are not adequately analyzed in the DSEIR.<sup>227</sup> SWAPE’s updated modeling provides support for the requested preparation of a project-level EIR that adequately assesses and mitigates the Project’s potentially significant air quality impacts.

b. The Potential Health Risk Impacts were Not Adequately Disclosed, Analyzed, or Mitigated in the DSEIR

The Air Quality and Greenhouse Gas Emissions Report in Appendix I concludes that the Project would not expose sensitive receptors to substantial pollutant concentrations.<sup>228</sup> However, the DSEIR fails to include a quantified health risk analysis (“HRA”) in order to analyze the adverse health impacts that may be caused by exposure to toxic air contaminants (“TACs”) from the Project’s construction and operational emissions. As a result, the potentially significant

<sup>225</sup> *Id.*

<sup>226</sup> *Id.*

<sup>227</sup> *Id.*

<sup>228</sup> DSEIR, Appendix I at 21.  
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cancer risk posed to nearby residents from TACs are undisclosed and unmitigated. Thus, the DSEIR fails to satisfy CEQA's requirements by omitting a discussion of these public health impacts.

CEQA expressly requires that an EIR to discuss "health and safety problems caused by the physical changes" resulting from the project.<sup>229</sup> Moreover, an EIR must "also analyze any significant environmental effects the project might cause or risk exacerbating by bringing development and people into the area affected."<sup>230</sup> When a project results in exposure to toxic contaminants, this analysis requires a "human health risk assessment."<sup>231</sup> The California Office of Environmental Health Hazard Assessment ("OEHHA")<sup>232</sup> guidance also sets a recommended threshold for preparing an HRA of a construction period of two months or more.<sup>233</sup> Construction of the instant Project will last at least until August 2023, which is well beyond the threshold and triggers a quantified HRA pursuant to the OEHHA Guidance. SDAPCD Rules adopt the OEHHA Guidance in their TAC rules, and the DSEIR referenced the thresholds set forth in those SDAPCD Rules.<sup>234</sup>

One of the primary emissions of concern regarding health effects for land development projects is diesel particulate matter ("DPM"), which can be released

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<sup>229</sup> 14 CCR § 15126.2(a).

<sup>230</sup> *Id.*

<sup>231</sup> *Sierra Club*, 6 Cal.5th at 520; *Berkeley Keep Jets Over the Bay Com.*, 91 Cal.App.4th at 1369; *Bakersfield Citizens for Local Control v. City of Bakersfield* (2004) 124 Cal.App.4th 1184, 1219–1220 (CEQA requires that there must be some analysis of the correlation between the project's emissions and human health impacts).

<sup>232</sup> OEHHA is the organization responsible for providing recommendations and guidance on how to conduct health risk assessments in California. See OEHHA organization description, available at <http://oehha.ca.gov/about/program.html>.

<sup>233</sup> See OEHHA, *Risk Assessment Guidelines Guidance Manual for Preparation of Health Risk Assessments* at 8-18 (February 2015), available at: [http://oehha.ca.gov/air/hot\\_spots/hotspots2015.html](http://oehha.ca.gov/air/hot_spots/hotspots2015.html).

<sup>234</sup> The DSEIR adopts SDAPCD's Excess Cancer Risk thresholds of "1 in 1 million" for development projects, and "10 in 1 million" for projects utilizing Toxics Best Available Control Technology ("T-BACT"). See DSEIR at 5.1-4, Table 5.1-1. T-BACT is defined as "the most effective emission limitation or emission control device or control technique which: (i) has been achieved in practice for that source or category of source; or (ii) is any other emissions limitation or control technique, including process and equipment changes of basic and control equipment and implementation of pollution prevention measures, found by the Air Pollution Control Officer to be technologically feasible for that source or category of source, or for a specific source. If there is an applicable MACT standard, the Air Pollution Control Officer shall evaluate it for equivalency with T-BACT." See SDAPCD Rule 1200(c)(24).

during Project construction and operation. The DSEIR fails to perform a quantitative assessment of the Project's DPM emissions but concludes that the Project would result in a less-than-significant construction-related health risk impact from DPM because of the highly dispersive nature of DPM, the short-term construction duration, and the fact that construction activities would occur at various locations throughout the Project site.<sup>235</sup> No analysis was provided regarding the Project's DPM emissions during operations.<sup>236</sup> The analysis in the DSEIR—or lack thereof—is inadequate for three reasons, as set forth in detail in SWAPE's expert comments.<sup>237</sup> First, neither the DSEIR nor the Appendices quantify the Project's construction-related and operational TAC, which weakens the DSEIR's effectiveness as an informational document.<sup>238</sup> DPM emissions would be emitted through exhaust stacks of construction equipment over the course of at least 26 months, and the Project's operational phase was estimated to generate approximately 19,040 and 14,426 average weekday and weekend vehicle trips, respectively, which would generate additional exhaust emissions.<sup>239</sup> Nevertheless, the DSEIR omitted a quantitative analysis of these DPM emissions and therefore impacts to exposed nearby sensitive receptors exposed to DPM emissions was not disclosed in the DSEIR.

Second, since the Project's construction timeline significantly exceeds the OEHHA two-month threshold, a quantified HRA should have been performed pursuant to OEHHA guidance.<sup>240</sup> Moreover, OEHHA recommends that exposure from projects lasting more than six months should be evaluated for the duration of the project and "that an exposure duration of 30 years be used to estimate individual cancer risk for the maximally exposed individual resident ("MEIR")."<sup>241</sup> Although the DSEIR fails to disclose the expected Project life, it is reasonable to assume the Project will operate for at least 30 years and thus health risk impacts from Project operation must also be evaluated.<sup>242</sup> The DSEIR improperly omitted this analysis.

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<sup>235</sup> DSEIR, Appendix I at 21.

<sup>236</sup> SWAPE at 13.

<sup>237</sup> *Id.* at 13-14.

<sup>238</sup> *Id.* at 13.

<sup>239</sup> DSEIR, Appendix I at 14; DSEIR at 5.1-5.

<sup>240</sup> SWAPE at 13-14.

<sup>241</sup> *Id.* at 14.

<sup>242</sup> *Id.*

Finally, “by claiming a less than significant impact without conducting a quantified construction and operational HRA for nearby, existing sensitive receptors, the DSEIR fails to compare the excess health risk impact to the applicable SDAPCD threshold of 10 in one million and lacks evidence to support its conclusion that the health risk would be less-than-significant.”<sup>243</sup> For these reasons, and based on the analysis and recommendations offered in SWAPE’s expert comments, a quantified HRA that analyzes the adverse health impacts that may be caused by exposure to TACs from the Project’s construction and operational emissions must be performed and included in a project-level EIR for the Project.

SWAPE conducted a screening-level HRA, which “demonstrate[d] that construction and operation of the Project could result in a significant health risk impact, when correct exposure assumptions and up-to-date, applicable guidance are used.”<sup>244</sup> Utilizing AERSCREEN<sup>245</sup> and applicable HRA methodologies recommended by OEHHA and SDAPCD, SWAPE concludes that “[t]he excess cancer risk over the course of a residential lifetime (30 years), utilizing Age Sensitivity Factors (“ASFs”), is approximately 56.1 in one million. The infant, child, and lifetime cancer risks exceed the SDAPCD threshold of 10 in one million, thus resulting in a potentially significant impact that was not previously addressed or identified in the DSEIR.”<sup>246</sup> Even without ASFs, the excess cancer risk calculated by SWAPE over the course of thirty years is 16.2 in one million, which would exceed the SDAPCD threshold of ten in one million.<sup>247</sup> This is a new and more severe health risk than disclosed in the Pavilion FEIR, and is not adequately disclosed or mitigated in the DSEIR.

The City must prepare a legally adequate project-level EIR to address the potentially significant health risk impacts described in this comment letter and the attached expert comments. As written, the DSEIR is completely deficient as an informational document in failing to disclose the Project’s potentially significant impacts to public health and does not provide any mitigation to reduce these impacts to less than significant levels.

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<sup>243</sup> *Id.*

<sup>244</sup> *Id.* at 17.

<sup>245</sup> U.S. EPA, *AERSCREEN Released as the EPA Recommended Screening Model* (April 2011), available at:

[http://www.epa.gov/ttn/scram/guidance/clarification/20110411\\_AERSCREEN\\_Release\\_Memo.pdf](http://www.epa.gov/ttn/scram/guidance/clarification/20110411_AERSCREEN_Release_Memo.pdf)

<sup>246</sup> SWAPE at 17.

<sup>247</sup> *Id.*

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**D. The DSEIR Fails to Adequately Disclose and Mitigate the Project's New and More Severe Impacts from Greenhouse Gas Emissions**

“The Legislature has ‘emphatically established as state policy the achievement of a substantial reduction in the emission of gases contributing to global warming.’”<sup>248</sup> Moreover, CEQA requires a lead agency to “make a good-faith effort, based to the extent possible on scientific and factual data, to describe, calculate or estimate the amount of [GHG] emissions resulting from a project.”<sup>249</sup> Here, the DSEIR’s quantitative GHG analysis is unsubstantiated and therefore fails to support the DSEIR’s conclusion that impacts from GHG emissions would be less than significant. Additionally, the DSEIR relied on sustainability features rather than formal mitigation measures to demonstrate consistency with the City of Oceanside’s Climate Action Plan (“CAP”). To ensure these sustainability measures are enforceable, verifiable, and incorporated into the Project’s design, the DSEIR should have included the measures as additional mitigation. Without implementing sufficient safeguards, the DSEIR fails to demonstrate consistency with the City’s CAP.

a. The DSEIR Fails to Disclose Potentially Significant Impacts from GHG Emissions

The DSEIR concludes that the Project would not generate GHG emissions that may have a significant impact on the environment because “the Project’s operational GHG emissions would be approximately 3.0 MT CO<sub>2</sub>e per service population per year, which would be below the 2025 City threshold of 3.5 MT CO<sub>2</sub>e per service population per year.”<sup>250</sup> However, as discussed in the attached expert report by SWAPE, the DSEIR’s conclusion that impacts from GHG emissions would be less than significant is incorrect and unsubstantiated.

First, the DSEIR’s quantitative GHG analysis is unsubstantiated because “several of the values inputted into the model are not consistent with information disclosed in the DSEIR.”<sup>251</sup> Inputting incorrect values into the model may cause

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<sup>248</sup> *Golden Door Properties, LLC*, 50 Cal. App. 5th at 484.

<sup>249</sup> 14 C.C.R. § 15064.4(a).

<sup>250</sup> DSEIR at 5.1-13.

<sup>251</sup> SWAPE at 19.

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Project GHG emissions to be underestimated.<sup>252</sup> Instead, a project-level EIR is necessary to adequately assess the GHG impacts of the Project.

Second, the DSEIR calculations relied on a bloated service population efficiency value of 6,725 people that incorrectly accounted for customers and visitors in addition to residents and employees.<sup>253</sup> Inclusion of customers and visitors in the service population calculation is contrary to the definition of “service population” set forth in the CAPCOA CEQA & Climate Change Report.<sup>254</sup> Pursuant to this Report, SWAPE performed the proper calculations for the service population efficiency value and estimated a service population of 2,334 people.<sup>255</sup> “When utilizing a correct service population value and applying the City’s 2025 Efficiency Threshold of 3.5 MT CO<sub>2</sub>e/SP/year, as well as the County’s bright-line threshold of 900 MT CO<sub>2</sub>e/year, the DSEIR’s incorrect and unsubstantiated air model indicates a potentially significant GHG impact,” as shown in the below table.<sup>256</sup>

<b>Greenhouse Gas Emissions</b>	
<b>Source</b>	<b>DSEIR Model</b>
<b>Total Annual Emissions (MT CO<sub>2</sub>e/year)</b>	<b>20,195.9</b>
Bright-line Threshold	900
Service Population	2,334
<b>Service Population Efficiency (MT CO<sub>2</sub>e/SP/year)</b>	<b>8.65</b>
2025 Efficiency Threshold	3.50
Exceed?	Yes

Thus, a project-level EIR that accurately and adequately analyzes the potentially significant GHG impacts from the Project is required and corresponding mitigation measures should be implements where necessary.

<sup>252</sup> *Id.*

<sup>253</sup> *Id.*; See also DSEIR at 5.1-13.

<sup>254</sup> *Id.*; See also CAPCOA, *CEQA & Climate Change* at 71-72 (January 2008), available at: <http://www.capcoa.org/wp-content/uploads/2012/03/CAPCOA-White-Paper.pdf>.

<sup>255</sup> SWAPE at 19.

<sup>256</sup> *Id.*

b. The DSEIR Fails to Demonstrate Consistency with the City's CAP

The DSEIR further concludes that the Project would not conflict with the goals of the CAP given that emissions were calculated to be below the City's threshold (which is not based in fact for the reasons discussed above), and because the Project would be vaguely consistent with "requirements regarding smart growth, alternative-fueled vehicle infrastructure, alternative-fueled vehicle parking, transportation demand management, recycled water, and tree canopy."<sup>257</sup> However, in failing to incorporate the PDFs listed on page 2-10 of the DSEIR as formal mitigation measures, no assurance is provided in the DSEIR that the measures will be adopted and can be enforced.<sup>258</sup> For these reasons, SWAPE concludes that the DSEIR fails to provide substantial evidence to demonstrate the Project's consistency with the CAP and potentially significant impacts are not mitigated in the DSEIR.<sup>259</sup>

**E. The DSEIR Fails to Adequately Disclose and Mitigate the Project's New and More Severe Impacts on Biological Resources**

The proposed Project involves numerous revisions to the former Pavilion project that substantially increase the severity of indirect impacts, like edge effects, on sensitive biological resources. These changes include, but are not limited to, a new mixed-use development plan, architectural and design changes, and proposed uses, e.g., residential, resort, and commercial. Despite these significant changes to the Project, the DSEIR fails to analyze the Project's indirect effects and instead relies on a conclusory assertion that there would be no new edge effects, and that the mitigation incorporated into the Pavilion FEIR would be sufficient to reduce edge effects to less-than-significant levels.<sup>260</sup> For the reasons set forth herein and in the attached expert report by Mr. Scott Cashen, M.S., the DSEIR's conclusion is not supported by evidence or analysis.

As detailed in Mr. Cashen's report, the Project would generate new edge effects, and substantially increase the severity of edge effects identified in the Pavilion FEIR such that the previously approved mitigation measures are no longer

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<sup>257</sup> DSEIR at 5.1-13; SWAPE at 20-21.

<sup>258</sup> See SWAPE at 21.

<sup>259</sup> *Id.*

<sup>260</sup> DSEIR at 5.1-8.

sufficient for this Project.<sup>261</sup> Additionally, Mr. Cashen identifies deficiencies with the DSEIR's analysis of impacts to wetlands.

a. Substantial Evidence Demonstrates that Changes to the Project Present New and More Severe Edge Effects and Substantially Increase the Severity of the Edge Effects Previously Analyzed in the Pavilion FEIR

The Pavilion FEIR concluded that indirect impacts caused by "edge effects" would be potentially significant.<sup>262</sup> Nevertheless, the DSEIR omits any discussion regarding how edge effects may result in new significant impacts as compared to the prior project upon concluding that impacts on biological resources would not exceed impacts previously analyzed in the Pavilion FEIR.<sup>263</sup> To the contrary, Mr. Cashen's report provides substantial evidence to demonstrate that changes to the Project (mainly the new residential uses) would generate new, potentially significant edge effects, and substantially increase the severity of the edge effects identified in the Pavilion FEIR.<sup>264</sup> The new, potentially significant edge effects of the Project and those effects that have increased severity due to the Project changes are discussed in detailed in the attached expert report by Mr. Cashen and summarized below.

- **Argentine ants** – The Argentine ant (an exotic, invasive species) has severe, adverse effects on native biota.<sup>265</sup> The Pavilion FEIR acknowledged that "residential uses usually introduce Argentine ants (*Linepithema humile*) to local habitats, which could have adverse consequences for native ant species and animals that feed on them," but concluded that the issue did not warrant further analysis (or mitigation) because "*the project does not include any residential uses.*"<sup>266</sup> Mr. Cashen explains that the new residential uses proposed for this Project, however, would "provide high quality habitat for Argentine ants and enable them to occur at high densities and spread rapidly."<sup>267</sup>

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<sup>261</sup> See Cashen at 12-13.

<sup>262</sup> Pavilion FEIR at S-13 and -14.

<sup>263</sup> Scott Cashen at 2; DSEIR at 5.1-1.

<sup>264</sup> *Id.* at 2-12.

<sup>265</sup> City of Oceanside, *Final Oceanside Subarea Plan* at 7-17 (2010).

<sup>266</sup> City of Oceanside, *Final Environmental Impact Report for the Pavilion at Oceanside; Appendix C* at 29 (September 4, 2008)(emphasis added).

<sup>267</sup> Cashen at 3.

Additionally, this Project proposes “a 91,000 square foot increase in storm water retention features that would provide mesic microclimates beneficial to Argentine ants. The new storm water features and residential developments associated with the Project increase the potential that the Project would facilitate invasion of the San Luis Rey River corridor by Argentine Ants—especially because modifications to the Project include construction of a large biofiltration basin and multiple residential units (i.e., Argentine ant habitat) in close proximity to the San Luis Rey River corridor.”<sup>268</sup> The DSEIR fails to disclose and mitigate the potentially significant impacts from Argentine ants.

- **Predation by Domestic Cats** – Domestic cats present a significant threat to the survival of birds in and around the Project site.<sup>269</sup> “Therefore, even if only a few of the residential units developed for the Project would have domestic cats that go outside, those cats could have a significant impact on the California gnatcatcher, least Bell’s vireo, and other special-status birds that are present on or around the Project site.”<sup>270</sup> Although the Pavilion FEIR recognized that domestic animals could cause a significant impact to native wildlife, the Pavilion FEIR dismissed the impact, reasoning that “[t]he potential for introduction of nuisance animals is limited in this case by the fact that the project does not include any residential uses.”<sup>271</sup>

As discussed by Mr. Cashen, the same reasoning is not applicable to the current Project.<sup>272</sup> In fact, Mr. Cashen concludes that “the potential for the currently proposed Project to cause a significant impact to special-status birds and other native wildlife is heightened by the Applicant’s plan to construct approximately 146 dwelling units in the lots bordering the biological open space (gnatcatcher dispersal corridor), and approximately 213 dwelling units in the lots bordering the San Luis Rey River corridor.”<sup>273</sup> Thus, as supported by Mr. Cashen’s comments, the severity of the impacts from predation by domestic cats is substantially increased yet the DSEIR fails to analyze and mitigate this potentially significant impact.

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<sup>268</sup> *Id.*

<sup>269</sup> *Id.* at 4.

<sup>270</sup> *Id.*

<sup>271</sup> City of Oceanside, *Final Environmental Impact Report for the Pavilion at Oceanside; Appendix C* at 28-29 (September 4, 2008).

<sup>272</sup> Cashen at 4.

<sup>273</sup> *Id.*

- **Avian Collisions** – The Project design and materials are very different from the former project.<sup>274</sup> These project changes create new project-specific hazards to birds that were not analyzed in the Pavilion FEIR or the DSEIR. These include: (1) buildings with reflective or transparent windows, large windows, or a high percentage of glass; (2) windowed courtyards and balconies; (3) buildings with windows located adjacent to extensive vegetation; and (4) windows adjacent to open spaces one hectare (2.47 acres) or greater in size.<sup>275</sup> Given the foregoing Project changes, Mr. Cashen concludes that “the increase in the avian collision hazard posed by the proposed Project uses and design features represents a substantially more severe significant impact on special-status birds than shown in the Pavilion FEIR. Due to the issues described above, the City must analyze the avian collision hazard as a potentially significant impact, and it must provide adequate mitigation.”<sup>276</sup>
- **Invasive Species** – Table 2-4 in the DSEIR provides a list of plant species that comprise the conceptual landscape palette for the proposed Project, which would nearly double the overall landscaped area as compared to the prior project.<sup>277</sup> Several of the plants listed in Table 2-4 are in the California Invasive Plant Inventory.<sup>278</sup> For these reasons, Mr. Cashen concludes that a revised landscape palette must be required for the Project and that “the DSEIR needs to discuss what mechanisms (if any) would prevent the Project’s residences (or property managers) from planting invasive species after development of the Project is complete.”<sup>279</sup>
- **Night Lighting** – The DSEIR concludes that MM BIO-12, as identified in the Pavilion FEIR, would mitigate the potentially significant impacts from night lighting to less than significant levels.<sup>280</sup> However, Mr. Cashen found two problems with this conclusion. First, “the DSEIR fails to discuss how revisions to the Project would affect: (a) the height and abundance of lights at the Project site; (b) the types of lights that will be installed; (c) the luminosity

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<sup>274</sup> DSEIR at 2-7; Pavilion FEIR at S-8.

<sup>275</sup> Cashen at 7-9.

<sup>276</sup> *Id.* at 9-10.

<sup>277</sup> DSEIR at 2-13—2-15.

<sup>278</sup> Cashen at 10.

<sup>279</sup> *Id.*

<sup>280</sup> DSEIR at 5.1-9.

of the bulbs; and (d) the location and density of light fixtures.”<sup>281</sup> Second, Mr. Cashen highlights the DSEIR’s lack of “quantitative standards for BIO-12, which makes efficacy of the mitigation uncertain.”<sup>282</sup> Taken together, Mr. Cashen concludes: “The City’s failure to provide a lighting plan precludes the ability to validate the City’s conclusion that, despite significant revisions to the development plan, no additional mitigation is needed to prevent significant impacts on wildlife (due to night-lighting).”<sup>283</sup>

- **Brown-headed Cowbird** – As discussed by Mr. Cashen, “[n]est parasitism by the brown-headed cowbird (a species that is not indigenous to California) is one of the primary reasons for the decline of the least Bell’s vireo, a federally and state endangered species.”<sup>284</sup> Given that the Project proposes the addition of 700 residential units and fifteen acres of recreational space in close proximity to habitat occupied by the least Bell’s vireo, Mr. Cashen concludes that “[t]hese features would facilitate an increase in the size of the cowbird population, with concomitant impacts on the least Bell’s vireo population.”<sup>285</sup>

Therefore, based on the evidence presented herein and in Mr. Cashen’s expert report, there is substantial evidence that changes to the Project (e.g., residential development) would generate new, potentially significant edge effects, and substantially increase the severity of the edge effects identified in the Pavilion FEIR.

b. The DSEIR Provides Inconsistent Information Regarding Impacts to Wetlands and Is Therefore Deficient

The Pavilion FEIR estimated that the former project would directly impact 0.73 acre of jurisdictional wetlands and wetland habitats.<sup>286</sup> However, the DSEIR now estimates that the Project would only impact 0.57 acre of wetlands and wetland habitats.<sup>287</sup> The DSEIR fails to explain this discrepancy, and as determined in Mr.

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<sup>281</sup> Cashen at 11.

<sup>282</sup> *Id.*

<sup>283</sup> *Id.* at 11-12.

<sup>284</sup> *Id.* at 12,

<sup>285</sup> *Id.*

<sup>286</sup> Pavilion FEIR at S-13; *See also Helix, Mitigation Plan for the Pavilion at Oceanside Property* at 2 (November 26, 2007).

<sup>287</sup> DSEIR, p. 5.1-8 (BIO-2).

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Cashen's report, "[t]his deficiency impairs the public's ability to understand the Project's impacts on wetland resources and the sufficiency of the mitigation proposed in BIO-2."<sup>288</sup>

**F. The DSEIR Fails to Adequately Disclose and Mitigate the Project's New and More Severe Impacts on Water Quality and Supply, and Fails to Disclose Violations of the Water Code**

Despite over a decade of new water demands and drought conditions since the Pavilion FEIR was certified, the DSEIR nevertheless concludes that Project implementation, like the former project, would not result in significant impacts to hydrology, water quality, or water supply.<sup>289</sup> However, the cursory analysis of impacts to water resources in the DSEIR omits relevant information and provides insufficient detail about the effects of the Project on these critical resources.

First, the DSEIR fails to analyze the conservation measures, particularly with regards to residential uses, that would purportedly reduce future demand during multiple dry years given that "the City's total water demand is estimated to *exceed* the total supply by approximately 3% and 7% for the third year of 2035 and 2040, respectively."<sup>290</sup>

Second, the DSEIR omits any information about when and how much recycled water would be available to support the Project needs, and therefore the DSEIR's reliance on recycled water to offset potable water needs is highly suspect and uncertain.

Finally, the water demand estimations for the Project are uncertain and the DSEIR lacks substantial evidence to support the conclusion that the Project would not result in significant impacts to water resources given the dearth of information in the DSEIR about the Project's new residential uses.

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<sup>288</sup> Cashen at 2.

<sup>289</sup> DSEIR at 5.1-15.

<sup>290</sup> DSEIR, Appendix G at 3, 34 (emphasis added).  
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a. The DSEIR Does Not Establish the Project's Water Supply Sufficiency for Twenty-Year Protection, as Required by the Water Code

The DSEIR concludes that the Project would have sufficient water supplies, even during multiple dry years, and therefore did not set forth any additional avoidance, minimization, or mitigation measures.<sup>291</sup> However, the Water Supply Analysis in Appendix G determined that although there would be sufficient supply to meet the estimated demand over the twenty-year projection during normal years and single dry years, “the City’s total water demand is estimated to *exceed* the total supply by approximately 3% and 7% for the third year of 2035 and 2040, respectively,” and “...associated water conservation measures [would be needed to achieve projected demand] for multiple-dry years.”<sup>292</sup> The conclusion in the Water Supply Analysis is based on expected deficits during multiple dry year conditions anticipated in the City’s planning documents.<sup>293</sup>

The relevant threshold of significance is whether “sufficient water supplies [are] available to serve the Project and reasonably foreseeable future development during normal, dry *and multiple dry years*;...”<sup>294</sup> If achieving adequate supply during multiple dry years is dependent on the implementation of conservation measures, these measures must be identified, quantified, and evaluated in the DSEIR and corresponding Water Supply Analysis to confirm whether the measures are in fact adequate.

By way of example, Pavilion FEIR Water Supply Analysis quantified reduced future demands through increased water conservation measures and discussed these measures specifically.<sup>295</sup> To the contrary, neither the DSEIR nor Appendix G evaluate any relevant conservation measures, particularly with regards to residential uses, and any reductions to future demand are likewise not quantified. The DSEIR’s analysis regarding water supply during multiple dry years is therefore inadequate and the DSEIR lacks substantial evidence to demonstrate that the impacts on water supply would be less than significant.

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<sup>291</sup> DSEIR at 4.6-8.

<sup>292</sup> DSEIR, Appendix G at 3, 34 (emphasis added).

<sup>293</sup> *Id.* at 3.

<sup>294</sup> California Water Code § 10910(c)(3); DSEIR at 4.6-4 (emphasis added).

<sup>295</sup> City of Oceanside, *Final Environmental Impact Report for the Pavilion at Oceanside; Appendix J* at 12 (September 4, 2008).

b. The DSEIR Must Not Only Disclose Possible Alternative Water Sources, but Also the Impacts

Impact 2 in the DSEIR explains that “In addition, the City can increase supply through the purchases of ... continued augmentation of recycled water use in new as well as established parts of the City’s service area, which is anticipated to offset potable demand. Recycled water is anticipated by the City to be available through the Fallbrook outfall line in the near future. When available, the proposed Project would convert its irrigation system to access recycled rather than potable water for irrigation supply.”<sup>296</sup> The DSEIR, however, omits any information about when and how much recycled water would be available to support the Project needs. In failing to disclose this information in the DSEIR, the DSEIR’s reliance on recycled water to offset potable water needs is highly suspect and uncertain.

As explained by the court in *Vineyard Area Citizens for Responsible Growth, Inc.*, “CEQA’s informational purposes are not satisfied by an EIR that simply ignores or assumes a solution to the problem of supplying water to a proposed land use project. Decision makers must, under the law, be presented with sufficient facts to ‘evaluate the pros and cons of supplying the amount of water that the [project] will need.’”<sup>297</sup> Moreover, “...speculative sources and unrealistic allocations (‘paper water’) are insufficient bases for decision-making under CEQA. An EIR for a land use project must address the impacts of likely future water sources, and the EIR’s discussion must include a reasoned analysis of the circumstances affecting the likelihood of the water’s availability.”<sup>298</sup>

Here, the DSEIR’s Water Supply Analysis disclosed that recycled water is a mere 0.5% of the total water use for the City.<sup>299</sup> This is because at present, recycled water in the City is only used to irrigate the Oceanside Municipal Golf Course and provide water for habitat at Whelan Lake.<sup>300</sup> As such, recycled water hardly even makes up a ‘drop in the bucket’ in the City’s water supply. Despite the limited availability of recycled water, the DSEIR relies on an undisclosed volume of recycled water at an unspecified date to offset potable water demand, rendering the DSEIR’s water supply conclusions unsupported. Additional information about the Project’s proposed use of recycled water is required under CEQA; “...CEQA’s

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<sup>296</sup> DSEIR at 4.6-7.

<sup>297</sup> *Vineyard Area Citizens for Responsible Growth, Inc.*, 40 Cal. 4th at, 430–31.

<sup>298</sup> *Id.* at 432.

<sup>299</sup> DSEIR, Appendix G at 20.

<sup>300</sup> *Id.*

demand for meaningful information ‘is not satisfied by simply stating information will be provided in the future.’”<sup>301</sup>

c. The DSEIR’s Water Demand Estimations are Uncertain and Omit Relevant Project Components

As explained by the court in *Vineyard Area Citizens for Responsible Growth, Inc. v. City of Rancho Cordova*, “...the future water sources for a large land use project and the impacts of exploiting those sources are not the type of information that can be deferred for future analysis. An EIR evaluating a planned land use project must assume that all phases of the project will eventually be built and will need water, and must analyze, to the extent reasonably possible, the impacts of providing water to the entire proposed project.”<sup>302</sup> Here, the DSEIR’s Water Supply Analysis only considers projected potable water demand at buildout, but neither the DSEIR nor the Water Supply Analysis clearly define when full buildout would be achieved for the Project.<sup>303</sup> Moreover, it is unknown if “buildout” is the maximum amount of water that will be needed for the Project, or if more water will be needed for different stages of the Project.

Additionally, the Water Demands Estimation in Table 2.2 in the Water Supply Analysis is deficient because the Table omitted numerous project components and uses, including, multiple pools in addition to the wave pool, water needed for fire protection, water needed for landscaping,<sup>304</sup> water needed for open space areas (if any), and water needed for dust control.<sup>305 306</sup>

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<sup>301</sup> *Vineyard Area Citizens for Responsible Growth, Inc.*, 40 Cal. 4th at 431.

<sup>302</sup> *Id.*

<sup>303</sup> DSEIR, Appendix G at 3.

<sup>304</sup> This Project proposes nearly twice as much landscaping as proposed in the Pavilion FEIR (34% for Ocean KAMP Project as compared to 18% of site for Pavilion Project). The substantial increase in landscaped areas for this Project would likely increase water needs as well, but this information is not disclosed in the DSEIR.

<sup>305</sup> *Id.* at 15.

<sup>306</sup> “The Project would incorporate best management practices (BMPs) during construction to reduce emissions of fugitive dust. The San Diego Air Pollution Control District (SDAPCD) Rule 55 – Fugitive Dust Control states that no dust and/or dirt shall leave the property line.” DSEIR at 2-19. BMPs include: (1) At least 2 applications of water must be applied during grading between dozer/grader passes (DSEIR 2-20); and (2) All exposed soils shall maintain a min soil moisture of 12% (DSEIR 2-20)

d. The Project's New Residential Uses Have Different Impacts on Water Quality and Supply as Compared to Commercial Uses That Are Not Adequately Analyzed in the DSEIR

The DSEIR's conclusion that the Project would not result in significant impacts to water quality, water supply, or the San Luis Rey River is not supported by substantial evidence given the dearth of information in the DSEIR about the Project's new residential uses.<sup>307</sup> The DSEIR relies in part on the Drainage Report in Appendix L to support the analysis regarding the hydrological effects of the proposed Project, which determined "that the Project as designed would not substantially alter existing drainage patterns."<sup>308</sup>

However, as explained above, the DSEIR omits a host of necessary information about the Project's proposed residential uses, such as a detailed map, figures depicting the various designs for the residential units, the number of units for each type of residence, the materials to be used, etc. Without this information, the DSEIR's cursory discussion about the Project's effects on hydrology and water quality is unsupported and highly suspect with regard to the proposed residential uses. For example, the DSEIR is able to provide specific percentages regarding the drainage patterns for the hotel and commercial areas, but only generally states that "[r]unoff from the proposed residential area to the east also contribute to the existing drain."<sup>309</sup> A new or subsequent EIR must be prepared to include additional details about the proposed residential uses and the impacts analysis must also be updated based on the added information. Once revised, the new EIR must be recirculated for public review.

**G. New and Potentially More Severe Impacts from Hazards were Not Evaluated or Mitigated in the DSEIR**

Significant yet mitigable impacts from hazards were identified in the Pavilion FEIR due in part to the "release of isolated concentrations of the pesticide dieldrin and toxaphene (associated with prior on-site agriculture starting in 1928 until approximately 2000) during grading,...."<sup>310</sup> The DSEIR, however, concludes, without analysis, that impacts from hazards were not found to be significant and

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<sup>307</sup> See DSEIR at 5.1-15.

<sup>308</sup> *Id.*

<sup>309</sup> *Id.*

<sup>310</sup> DSEIR at 4-1. "Dieldrin is considered to be a probable human carcinogen by the US EPA. Toxaphene is also considered to be a probable human carcinogen by the US EPA." SWAPE at 2. 5607-004acp

were instead determined to be consistent with the impacts analyzed in the Pavilion FEIR.<sup>311</sup> Moreover, the DSEIR did not provide any additional mitigation measures beyond what was already required in the Pavilion FEIR to address the potentially more severe hazardous materials impacts that would result from the changes in the Project's design.<sup>312</sup>

As of December 19, 2019, the Project site is considered "closed" on GeoTracker upon completion of soil remediation activities, including the encapsulation of nearly 20,000 cubic yards pesticide-contaminated soil.<sup>313</sup> Approximately 14,100 cubic yards of contaminated soils were placed within the western encapsulation area and approximately 5,500 cubic yards were placed within the eastern encapsulation area.<sup>314</sup> The pesticide-impacted soil was placed a minimum of 5 feet below proposed finish grade and a minimum of 7 feet above the existing groundwater elevation within the encapsulation areas.<sup>315</sup>

The DSEIR briefly mentions that this Project would require an additional 300,000 cubic yards of fill on the Project site, which the attached expert comments consider to be "a major change from the 2008 Pavilion FEIR."<sup>316</sup> However, "[t]he DSEIR fails to disclose or analyze the potentially significant impacts from this additional fill in areas above and around the encapsulated soils and specifically how construction will be completed to avoid disturbance of the encapsulated contaminated soils."<sup>317</sup> Our experts found these omissions to be "particularly egregious given that the Project proposes new residential uses that were not analyzed in the Pavilion FEIR. The DSEIR also fails to analyze whether the 2019 remediation and site closure is adequate for the Project's proposed residential uses."<sup>318</sup>

Although the DSEIR did not propose any additional mitigation measures, it did adopt MM GEO-1 from the Pavilion FEIR, which states: "Loose surficial soil in the upper 1 to 2 feet would be over-excavated prior to placement of fill or in building

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<sup>311</sup> *Id.* at 4-2.

<sup>312</sup> *Id.* at 5.1-14.

<sup>313</sup> State Water Resources Control Board, *GeoTracker; Zephyr-Oceanside (SLT19752423)*, available at: [https://geotracker.waterboards.ca.gov/profile\\_report?global\\_id=SLT19752423](https://geotracker.waterboards.ca.gov/profile_report?global_id=SLT19752423).

<sup>314</sup> *Id.*

<sup>315</sup> *Id.*

<sup>316</sup> SWAPE at 2.

<sup>317</sup> *Id.*

<sup>318</sup> *Id.*

pad locations. The upper 5 to 10 feet of soil, which is loose to medium dense, would be over excavated in deep fill areas, and compacted as engineered fill.”<sup>319</sup> However, as detailed in the attached expert comments by SWAPE, “[p]esticide-impacted soil placed at depths as shallow as five feet, may be encountered if over excavation to depths of up to ten feet is to be conducted where the contaminated soils are located, presenting potentially significant impacts that were not analyzed in the DSEIR.”<sup>320</sup>

Based on the foregoing omissions, our experts recommend the preparation of a project-level EIR to analyze potentially significant impacts from disturbing and/or encountering pesticide-contaminated soils in areas that are to be over excavated under MM GEO-1.<sup>321</sup> Additionally, the attached expert comments by SWAPE explain that an evaluation of health impacts on construction workers who may come into contact with pesticide-contaminated soils is also necessary, which should include the identification of appropriate mitigation measure(s) to lessen impacts to less than significant levels.<sup>322</sup>

## **V. THE PROJECT FAILS TO COMPLY WITH THE SUBDIVISION MAP ACT**

The Project requires a Tentative Map to divide the Project site into sixteen lots, nine of which would be for residential uses.<sup>323</sup> The DSEIR lacks substantial evidence to support the Subdivision Map Act’s required factual findings to approve the Tentative Map, which require the City to find that a proposed subdivision is consistent with the general plan/specific plan, and does not have any detrimental environmental or public health effects.<sup>324</sup>

The purpose of the Subdivision Map Act is to regulate and control design and improvement of subdivisions with proper consideration for their relation to adjoining areas, to require subdividers to install streets and other improvements, to prevent fraud and exploitation, and to protect both the public and purchasers of subdivided lands.<sup>325</sup> Before approving a tentative map, the Subdivision Map Act requires the agency’s legislative body to make findings that the proposed

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<sup>319</sup> DSEIR at 5.1-11.

<sup>320</sup> SWAPE at 2.

<sup>321</sup> *Id.*

<sup>322</sup> *Id.* at 2-3.

<sup>323</sup> DSEIR, p. 1-7.

<sup>324</sup> Gov Code §§66473.5, 66474.

<sup>325</sup> *Pratt v. Adams* (1964) 229 Cal.App.2d 602.  
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subdivision map, together with the provisions for its design and improvement, is consistent with the general plan and any specific plan.<sup>326</sup> The Subdivision Map Act also requires the agency's legislative body to deny a proposed subdivision map in any of the following circumstances:

- (a) the proposed map is ***not consistent with applicable general and specific plans*** as specified in Section 65451.
- (b) the design or improvement of the proposed subdivision is ***not consistent with applicable general and specific plans***.
- (c) the site is not physically suitable for the type of development.
- (d) the site is not physically suitable for the proposed density of development.
- (e) the ***design of the subdivision or the proposed improvements are likely to cause substantial environmental damage or substantially and avoidably injure fish or wildlife or their habitat***.
- (f) the ***design of the subdivision or type of improvements is likely to cause serious public health problems***.
- (g) the ***design of the subdivision or the type of improvements will conflict with easements, acquired by the public at large, for access through or use of, property within the proposed subdivision***. In this connection, the governing body may approve a map if it finds that alternate easements, for access or for use, will be provided, and that these will be substantially equivalent to ones previously acquired by the public. This subsection shall apply only to easements of record or to easements established by judgment of a court of competent jurisdiction and no authority is hereby granted to a legislative body to determine that the public at large has acquired easements for access through or use of property within the proposed subdivision.<sup>327</sup>

As discussed above, there is substantial evidence demonstrating that the Project is likely to have new and more severe impacts on air quality, public health, climate change, noise, biological resources, water supply, and traffic than previously analyzed in the Pavilion FEIR, and which are not adequately mitigated in the DSEIR. As a result of these unmitigated impacts, the Project fails to comply with mandatory Subdivision Map Act requirements and the City cannot make the requisite findings to approve the Project's Tentative Map.

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<sup>326</sup> Gov Code § 66473.5.

<sup>327</sup> Gov. Code § 66474 (emphasis added).

## VI. CONCLUSION

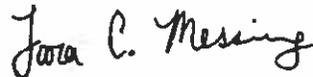
“[T]he ultimate decision of whether to approve a project, be that decision right or wrong, is a nullity if based upon an EIR that does not provide the decision-makers, and the public, with the information about the project that is required by CEQA.’ The error is prejudicial ‘if the failure to include relevant information precludes informed decision-making and informed public participation, thereby thwarting the statutory goals of the EIR process.’”<sup>328</sup>

For the reasons set forth herein, we urge the City of Oceanside to fulfill its responsibilities under CEQA by withdrawing the DSEIR and preparing a legally adequate, project-level EIR to address the potentially significant impacts described in this comment letter and the attached expert comments. An EIR is necessary to allow the decision-makers and public to ensure that the Project’s significant environmental impacts are mitigated to less than significant levels.

In the alternative, the City must prepare a subsequent EIR pursuant to CEQA Guidelines Section 15162 to address the substantial changes in the Project, and the new and more severe impacts of the current Project that were not analyzed or mitigated in the Pavilion FEIR.

Thank you for your attention to these comments.

Sincerely,



Tara C. Messing  
Associate

TCM:acp

Attachments

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<sup>328</sup> *Napa Citizens for Honest Gov’t v. Napa Cty. Bd. of Supervisors* (2001) 91 Cal. App. 4th 342, 355–56, as modified (Aug. 7, 2001), as modified on denial of reh’g (Sept. 4, 2001).  
5607-004acp

**EXHIBIT A**



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September 29, 2021

Tara C. Messing  
Adams Broadwell Joseph & Cardozo  
601 Gateway Blvd #1000  
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**Subject: Comments on the Ocean Kamp Project (SCH No. 2006111033)**

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Dear Ms. Messing,

We have reviewed the August 2021 Draft Supplemental Environmental Impact Report ("DSEIR") for the Ocean KAMP Project ("Project") located in the City of Oceanside ("City"). The Project proposes to construct 700 dwelling units, 300 hotel rooms within a 486,100 SF resort, including commercial and conference space, and 126,400 SF of retail and restaurant space, as well as 1,050 parking spaces, on the 94.25-acre site.

Our review concludes that the DSEIR fails to adequately evaluate the Project's hazards and hazardous materials, air quality, health risk, and greenhouse gas impacts. As a result, emissions and health risk impacts associated with construction and operation of the proposed Project are underestimated and inadequately addressed. A project-level EIR should be prepared and circulated for public comment to adequately assess and mitigate the potential hazards and hazardous materials, air quality, health risk, and greenhouse gas impacts that the Project may have on the surrounding environment.

## **Hazards and Hazardous Waste**

### **New Impacts Not Properly Evaluated or Mitigated**

The 2008 Final Environmental Impact Report ("FEIR") for the Pavilion at Oceanside Project identified significant and mitigable hazards and hazardous material impacts, cited in the DSEIR as:

"release of isolated concentrations of the pesticide dieldrin and toxaphene (associated with prior on-site agriculture starting in 1928 until approximately 2000) during grading, and potential removal of on-site soils contaminated by leakage from an off-site underground storage tank if

such soils are identified on site during grading, potential asbestos and lead associated with on-site structures, and overflight safety compliance.” (p. 3-9)

Furthermore, the DSEIR states that “[b]ased on the potential hazards and hazardous materials impacts identified in the Pavilion FEIR, mitigation measures were identified to mitigate the potential impact to less than significant.” (p. 5.1-14)

We note the site is listed on Envirostor as closed following regulatory review of the encapsulation of pesticide-contaminated soil.<sup>1</sup> The encapsulation was based on the proposed grading activities at the time of the 2019 Soil Remediation Plan,<sup>2</sup> and involved placing almost 20,000 cubic yards of pesticide-contaminated soil at depths as shallow as five feet below the Project site.<sup>3</sup> The encapsulated soils were contaminated with dieldrin and toxaphene. Dieldrin is considered to be a probable human carcinogen by the US EPA.<sup>4</sup> Toxaphene is also considered to be a probable human carcinogen by the US EPA.<sup>5</sup>

Now, the Ocean KAMP Project would require an additional 300,000 cubic yards of fill on the Project site, which is a major change from the 2008 Pavilion FEIR. The location and activities associated with this additional fill material were not contemplated in the Pavilion FEIR and thus the impacts from this additional fill material will not necessarily be mitigated by the measures set forth in the Pavilion FEIR. Additionally, despite this project change, the DSEIR failed to disclose or analyze the potentially significant impacts from this additional fill in areas above and around the encapsulated soils and specifically how construction will be completed to avoid disturbance of the encapsulated contaminated soils.

These omissions are particularly egregious given that the Project proposes new residential uses that were not analyzed in the Pavilion FEIR. The DSEIR also failed to analyze whether the 2019 remediation and site closure is adequate for the Project’s proposed residential uses.

Finally, we note that the DSEIR adopted Mitigation Measure GEO-1 from the Pavilion FEIR, which states:

“Loose surficial soil in the upper 1 to 2 feet would be over-excavated prior to placement of fill or in building pad locations. The upper 5 to 10 feet of soil, which is loose to medium dense, would be over excavated in deep fill areas, and compacted as engineered fill.” (p. 5.1-11)

Pesticide-impacted soil placed at depths as shallow as five feet, may be encountered if over excavation to depths of up to ten feet is to be conducted where the contaminated soils are located, presenting potentially significant impacts that were not analyzed in the DSEIR. A project-level EIR is therefore required that must disclose these potential impacts from encountering pesticide contaminated soils in areas that are to be over excavated under Mitigation Measure GEO-1. The project-level EIR should also

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<sup>1</sup> [https://geotracker.waterboards.ca.gov/profile\\_report?global\\_id=SLT19752423](https://geotracker.waterboards.ca.gov/profile_report?global_id=SLT19752423)

<sup>2</sup> [https://geotracker.waterboards.ca.gov/profile\\_report?global\\_id=SLT19752423](https://geotracker.waterboards.ca.gov/profile_report?global_id=SLT19752423);  
[https://geotracker.waterboards.ca.gov/getfile?filename=/esi/uploads/geo\\_report/9688110589/SLT19752423.PDF](https://geotracker.waterboards.ca.gov/getfile?filename=/esi/uploads/geo_report/9688110589/SLT19752423.PDF)

<sup>3</sup> [https://geotracker.waterboards.ca.gov/profile\\_report?global\\_id=SLT19752423](https://geotracker.waterboards.ca.gov/profile_report?global_id=SLT19752423)

<sup>4</sup> <https://wwwn.cdc.gov/TSP/ToxFAQs/ToxFAQsDetails.aspx?fagid=316&toxid=56>

<sup>5</sup> <https://wwwn.cdc.gov/TSP/ToxFAQs/ToxFAQsDetails.aspx?fagid=547&toxid=99>

evaluate health impacts to construction workers who may come into contact with the pesticide contaminated soil and as necessary, identify appropriate mitigation measure(s) to lessen these impacts to less than significant.

## Air Quality

### Unsubstantiated Input Parameters Used to Estimate Project Emissions

The DSEIR's air quality analysis relies on emissions calculated with CalEEMod.2016.3.2 (p. 5.1-4). CalEEMod provides recommended default values based on site-specific information, such as land use type, meteorological data, total lot acreage, project type, and typical equipment associated with project type. If more specific project information is known, the user can change the default values and input project-specific values, but the California Environmental Quality Act ("CEQA") requires that such changes be justified by substantial evidence. Once all of the values are inputted into the model, the Project's construction and operational emissions are calculated, and "output files" are generated. These output files disclose to the reader what parameters are utilized in calculating the Project's air pollutant emissions and make known which default values are changed as well as provide justification for the values selected.

When reviewing the Project's CalEEMod output files, provided in the Air Quality and Greenhouse Gas Technical Report ("AQ & GHG Technical Report") as Appendix I to the DSEIR, we found that several model inputs were not consistent with information disclosed in the DSEIR. As a result, the Project's construction and operational emissions are underestimated. Thus, a project-level EIR should be prepared to include an air quality analysis that adequately evaluates the potentially significant impacts that construction and operation of the Project will have on local and regional air quality.

#### *Underestimated Land Use Size*

According to the DSEIR:

"Total square footage of the resort, commercial, and conference facilities would total approximately 486,100 SF" (p. S-2).

However, review of the CalEEMod output files demonstrates that the "Ocean KAMP Project" model includes only 435,600-SF of "Hotel," and fails to include any commercial or conference space (see excerpt below) (Appendix I, pp. 59, 101).

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Other Asphalt Surfaces	19.75	Acre	19.75	860,310.00	0
Parking Lot	9.40	Acre	9.40	409,464.00	0
City Park	9.94	Acre	9.94	432,986.40	0
Hotel	300.00	Room	4.32	435,600.00	0
Recreational Swimming Pool	203.50	1000sqft	4.67	203,500.00	0
Condo/Townhouse	700.00	Dwelling Unit	27.40	700,000.00	2036
Strip Mall	126.40	1000sqft	1.52	126,400.00	0

As you can see in the excerpt above, the proposed hotel space was underestimated by 50,500-SF. This underestimation presents an issue, as the land use size feature is used throughout CalEEMod to determine default variable and emission factors that go into the model's calculations. The square footage of a land use is used for certain calculations such as determining the wall space to be painted (i.e., VOC emissions from architectural coatings) and volume that is heated or cooled (i.e., energy impacts).<sup>6</sup> Thus, by underestimating the size of the proposed resort, commercial, and conference space, the model underestimates the Project's operational emissions and should not be relied upon to determine Project significance.

*Unsubstantiated Reductions to Architectural and Area Coating Emission Factors*

Review of the CalEEMod output files demonstrates that the "Ocean KAMP Project" model includes several reductions to the default architectural and area coating emission factors (see excerpt below) (Appendix I, pp. 61, 102).

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	250.00	50.00
tblArchitecturalCoating	EF_Nonresidential_Interior	250.00	50.00
tblArchitecturalCoating	EF_Parking	250.00	50.00
tblArchitecturalCoating	EF_Residential_Exterior	250.00	50.00
tblArchitecturalCoating	EF_Residential_Interior	250.00	50.00
tblAreaCoating	Area_EF_Nonresidential_Interior	250	50
tblAreaCoating	Area_EF_Parking	250	50
tblAreaCoating	Area_EF_Residential_Exterior	250	50
tblAreaCoating	Area_EF_Residential_Interior	250	50

As you can see in the excerpt above, the architectural and area coating emission factors were each reduced from the default value of 250- to 50-grams per liter ("g/L"). As previously mentioned, the CalEEMod User's Guide requires any changes to model defaults be justified.<sup>7</sup> According to the "User Entered Comments & Non-Default Data" table, the justification provided for these changes is:

"50 g/L VOC limit per SDAPCD rule 67.0.1, effective 1/01/2022" (Appendix I, pp. 60, 102).

Furthermore, the AQ & GHG Technical Report states:

"Construction of development within the Specific Plan is required to comply with SDAPCD Rule 67.0.1 (Architectural Coatings) which requires residential interior/exterior flat coatings to be less than or equal to 50 grams per liter VOC content and interior/exterior non-flat coatings to be less than or equal to 50 grams per liter VOC content (SDAPCD 2021)" (p. 10).

However, these justifications are insufficient for two reasons.

<sup>6</sup> CalEEMod User Guide, available at: <http://www.caleemod.com/>, p. 28.

<sup>7</sup> CalEEMod User Guide, available at: [http://www.aqmd.gov/docs/default-source/caleemod/01\\_user-39-s-guide2016-3-2\\_15november2017.pdf?sfvrsn=4](http://www.aqmd.gov/docs/default-source/caleemod/01_user-39-s-guide2016-3-2_15november2017.pdf?sfvrsn=4), p. 2, 9

First, while the AQ & GHG Technical Report mentions the specific VOC content limits for flat and non-flat paints, it fails to discuss the specific VOC content limits for all coatings that may be used during project operation. As the DSEIR fails to explicitly require the Project to use only flat or non-flat paint coatings, we cannot verify the revised architectural and area coating emission factors.

Second, we cannot verify the accuracy of the revised architectural and area coating emission factors based on SDAPCD Rule 67.01 alone. The SDAPCD Rule 67.01 VOC Content of Coatings Table provides the required VOC limits (grams of VOC per liter of coating) for 48 different coating categories (e.g., Aluminum Floor coatings, Faux Finishing Coatings, Fire Resistive Coatings, Multi-Color Coatings, Primers, Sealers, Recycled Coatings, Shellac, Stains, Traffic Marking Coatings, Waterproofing Membranes, Wood Coatings, etc.).<sup>8</sup> The VOC limits for each coating varies from a minimum value of 50 g/L to a maximum value of 730 g/L. As such, SDAPCD Rule 67.01 fails to substantiate reductions to the default coating values without more information regarding what category of coating will be used. Absent additional information regarding which categories of coating would be used during Project construction and operation, we cannot compare the revised emission factors with the SDAPCD Rule 67.01 requirements for those categories.

These unsubstantiated reductions present an issue, as CalEEMod uses the architectural and area coating emission factors to calculate the Project’s reactive organic gas/volatile organic compound (“ROG”/“VOC”) emissions. Thus, by including unsubstantiated reductions to the default architectural and area coating emission factors, the model likely underestimates the Project’s construction-related and operational ROG/VOC emissions and should not be relied upon to determine the significance of the impacts on air quality and public health.

*Unsubstantiated Changes to Individual Construction Phase Lengths*

Review of the CalEEMod output files demonstrates that the “Ocean KAMP Project” model includes several changes to the default individual construction phase lengths (see excerpt below) (Appendix I, pp. 61, 103).

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	155.00	132.00
tblConstructionPhase	NumDays	110.00	41.00
tblConstructionPhase	NumDays	1,550.00	393.00
tblConstructionPhase	NumDays	110.00	132.00

As a result of these changes, the model includes a construction schedule as follows (see excerpt below) (Appendix I, pp. 78, 121):

<sup>8</sup> “RULE 67.0.1. ARCHITECTURAL COATINGS.” SDAPCD, February 2021, available at: [https://www.sdapcd.org/content/dam/sdc/apcd/PDF/Rules and Regulations/Prohibitions/APCD\\_R67-0-1-2021.pdf](https://www.sdapcd.org/content/dam/sdc/apcd/PDF/Rules%20and%20Regulations/Prohibitions/APCD_R67-0-1-2021.pdf), p. 13-15, Table 1.

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Grading	Grading	7/1/2021	12/31/2021	5	132	
2	Underground Utilities	Trenching	10/1/2021	12/31/2021	5	66	
3	Paving	Paving	1/1/2022	2/28/2022	5	41	
4	Building Construction	Building Construction	3/1/2022	8/31/2023	5	393	
5	Architectural Coating	Architectural Coating	3/1/2023	8/31/2023	5	132	

As you can see in the excerpt above, the grading phase length was decreased by approximately 15%, from the default value of 155 to 132 days; the paving phase length was decreased by approximately 63%, from the default value of 110 to 41 days; the building construction phase was decreased by approximately 75%, from the default value of 1,550 to 393 days; and the architectural coating phase was increased by approximately 20%, from the default value of 110 to 132 days. As previously mentioned, the CalEEMod User's Guide requires any changes to model defaults be justified.<sup>9</sup> According to the "User Entered Comments & Non-Default Data" table, the justification provided for these changes is:

"Demolition and site preparation completed under previous approval. Underground utilities concurrent with the last half of grading. Architectural coating concurrent with the last 6 months of building construction." (Appendix I, pp. 59-60, 101-102)

Furthermore, regarding the Project's anticipated construction schedule, the DSEIR states:

"Construction of the project is anticipated to be complete in approximately August 2023." (p. 2-19)

The AQ & GHG Technical Report states that the "construction schedule assumed in the modeling is shown in Table 5, *Anticipated Construction Schedule*" and provides the following schedule (Appendix I, pp. 29):

**Table 5  
ANTICIPATED CONSTRUCTION SCHEDULE**

Construction Activity	Construction Period Start	Construction Period End	Number of Working Days
Final Grading	7/1/2021	12/31/2021	132
Underground Utilities	10/1/2021	12/31/2021	66
Paving	1/1/2022	2/28/2022	41
Building Construction	3/1/2022	8/31/2023	383
Architectural Coatings	3/1/2023	8/31/2023	132

Source: Zephyr Oceanside LLC; CalEEMod

However, this is insufficient, as the source provided for the assumed individual construction phase lengths above is the CalEEMod output files themselves. This is incorrect, as the Project documents should substantiate the changes included in the CalEEMod model, not vice versa. According CalEEMod User's Guide:

<sup>9</sup> CalEEMod User Guide, available at: <http://www.caleemod.com/>, p. 2, 9

“CalEEMod was also designed to allow the user to change the defaults to reflect site- or project-specific information, when available, provided that the information is supported by substantial evidence as required by CEQA.”<sup>10</sup>

Here, as the DSEIR only provides the construction end date, the DSEIR and associated documents fail to provide substantial evidence to support the revised individual construction phase lengths.

These unsubstantiated changes present an issue, as the construction emissions are improperly spread out over a longer period of time for some phases, but not others. According to the CalEEMod User’s Guide, each construction phase is associated with different emissions activities (see excerpt below).<sup>11</sup>

Demolition involves removing buildings or structures.

Site Preparation involves clearing vegetation (grubbing and tree/stump removal) and removing stones and other unwanted material or debris prior to grading.

Grading involves the cut and fill of land to ensure that the proper base and slope is created for the foundation.

Building Construction involves the construction of the foundation, structures and buildings.

Architectural Coating involves the application of coatings to both the interior and exterior of buildings or structures, the painting of parking lot or parking garage striping, associated signage and curbs, and the painting of the walls or other components such as stair railings inside parking structures.

Paving involves the laying of concrete or asphalt such as in parking lots, roads, driveways, or sidewalks.

As such, by disproportionately altering individual construction phase lengths without proper justification, the model’s calculations are altered and may underestimate emissions. Thus, by including unsubstantiated changes to the default individual construction phase lengths, the model underestimates the Project’s construction-related emissions associated with some phases and is deficient to determine Project significance.

#### *Unsubstantiated Changes to Natural Gas Energy Use Values*

Review of the CalEEMod output files demonstrates that the “Ocean KAMP Project” model includes several changes to the default energy use values (see excerpt below) (Appendix I, pp. 61, 103).

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<sup>10</sup> CalEEMod User Guide, available at: <http://www.caleemod.com/>, p. 12.

<sup>11</sup> “CalEEMod User’s Guide.” CAPCOA, November 2017, available at: [http://www.aqmd.gov/docs/default-source/caleemod/01\\_user-39-s-guide2016-3-2\\_15november2017.pdf?sfvrsn=4](http://www.aqmd.gov/docs/default-source/caleemod/01_user-39-s-guide2016-3-2_15november2017.pdf?sfvrsn=4), p. 31.

Table Name	Column Name	Default Value	New Value
tblEnergyUse	LightingElect	4.50	0.00
tblEnergyUse	LightingElect	6.22	0.00
tblEnergyUse	NT24E	3.67	0.00
tblEnergyUse	NT24E	3.16	0.00
tblEnergyUse	NT24NG	11.10	0.00
tblEnergyUse	NT24NG	1.09	0.00
tblEnergyUse	T24E	4.78	28.06
tblEnergyUse	T24E	3.18	0.00
tblEnergyUse	T24NG	47.27	0.00
tblEnergyUse	T24NG	1.14	0.00

As you can see in the excerpt above, the lighting electricity (“LightingElect”), Nonitle-24 electricity energy intensity (“NT24E”), Nontitle-24 natural gas energy intensity (“NT24NG”), and Title-24 natural gas energy intensity (“T24NG”) values were all manually reduced to 0, while the Title-24 electricity energy intensity (“T24E”) was manually increased from the default value of 4.78 to 28.06 kilowatt hours per square feet (“kWh/SF”). As previously mentioned, the CalEEMod User’s Guide requires any changes to model defaults be justified.<sup>12</sup> According to the “User Entered Comments & Non-Default Data” table, the justification provided for these changes is:

“Energy use for resort/commercial/swimming pool from Climate Action Plan Energy Report (Siska Hennessy May 2021), combined energy use of all buildings and pools applied to the hotel.” (Appendix I, pp. 60, 102)

Furthermore, review of the Climate Action Plan (“CAP”) Energy Report (“Energy Report”), provided as Appendix J to the DSEIR, demonstrates that the Project’s anticipated total electricity use is 12,219,300 kWh (see excerpt below) (p. 3, Table 1).

Table 1

Project Component	Estimated Energy (kWh)
Buildings	7,570,300
Lap Pool Heating	128,100
Wave Pool Generator	4,520,900
Total Electricity	12,219,300

As demonstrated above, the energy use values associated with electricity (LightingElect, T24E, and N24E) included in the model are consistent with the Energy Report.<sup>13</sup> However, the Energy Report fails

<sup>12</sup> CalEEMod User Guide, available at: [http://www.aqmd.gov/docs/default-source/caleemod/01\\_user-39-s-guide2016-3-2\\_15november2017.pdf?sfvrsn=4](http://www.aqmd.gov/docs/default-source/caleemod/01_user-39-s-guide2016-3-2_15november2017.pdf?sfvrsn=4), p. 2, 9

<sup>13</sup> Calculated: (12,219,300 kWh) / (435,600-SF of hotel) = 28.05

to substantiate the reductions to the default energy use values associated with natural gas. Specifically, the Energy Report states:

“[N]atural gas consumption is limited to the food and beverage buildings, fitness center and overhead gas fired heaters” (p. 7).

However, review of the DSEIR demonstrates that the Project’s anticipated natural gas energy use is 10,139,461 kilo British thermal units per square feet (“KBTU/SF”) (p. 5.2-3).

**Table 5.2-2  
PROJECT ESTIMATED OPERATIONAL ENERGY USE**

Energy Type	Quantity	kBtu
Gasoline (Gallons)	55,076	6,829,436
Diesel (Gallons)	9,760	1,356,663
Natural Gas (kBtu)	10,139,461	10,139,461
Electricity (kWh)	13,371,754	45,626,324
	<b>TOTAL<sup>1</sup></b>	<b>63,951,884</b>

Source: Air Quality and Greenhouse Gas Technical Report (HELIX 2021b)

<sup>1</sup> The total presented is the sum of the unrounded values.

kBtu = kilo-British thermal units

As such, the reduction of the natural gas energy use values to zero is incorrect.

This presents an issue, as CalEEMod uses the energy use values to calculate the Project’s emissions associated with non-hearth natural gas usage.<sup>14</sup> By including unsubstantiated reductions to the natural gas energy use values, the model may underestimate the Project’s energy-related operational emissions and should not be relied upon to determine Project significance.

*Incorrect Application of Mitigation Measures for Construction-Related Emissions*

Review of the CalEEMod output files demonstrates that the “Ocean KAMP Project” model includes the following construction-related mitigation measures (see excerpt below) (Appendix I, pp. 80, 123):

**3.1 Mitigation Measures Construction**

Water Exposed Area

Water Unpaved Roads

Reduce Vehicle Speed on Unpaved Roads

Furthermore, the models include a 15 miles per hour (“MPH”) vehicle speed limit and a 12% minimum moisture content for unpaved roads (see excerpt below) (Appendix I, pp. 61, 103).

<sup>14</sup> CalEEMod User Guide, available at: <http://www.caleemod.com/>, p. 43

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	WaterUnpavedRoadMoistureContent	0	12
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15

As previously mentioned, the CalEEMod User’s Guide requires any changes to model defaults be justified.<sup>15</sup> However, no justification is provided by the “User Entered Comments & Non-Default Data” table. Furthermore, regarding SDAPCD Rule 55 fugitive dust best management practices (“BMPs”), the DSEIR states:

“The control measures listed below are the BMPs that the project would incorporate for dust control and are included in the modeling:

- A minimum of two applications of water shall be applied during grading between dozer/grader passes;
- Paving, chip sealing, or chemical stabilization of internal roadways shall be applied after completion of grading;
- Grading shall be terminated if winds exceed 25 miles per hour (mph);
- All exposed surfaces shall maintain a minimum soil moisture of 12 percent;
- Dirt storage piles shall be stabilized by chemical binders, tarps, fencing, or other erosion control; and
- Vehicle speeds shall be limited to 15 mph on unpaved roads.” (p. 2-20)

However, this justification is insufficient. Simply because the DSEIR states that the Project would comply with SDAPCD Rule 55 and the associated BMPs does not justify the inclusion of the above-mentioned construction-related mitigation measures in the model. According to the Association of Environmental Professionals (“AEP”) CEQA Portal Topic Paper on mitigation measures:

“By definition, mitigation measures are not part of the original project design. Rather, mitigation measures are actions taken by the lead agency to reduce impacts to the environment resulting from the original project design. Mitigation measures are identified by the lead agency after the project has undergone environmental review and are above-and-beyond existing laws, regulations, and requirements that would reduce environmental impacts” (emphasis added).<sup>16</sup>

As set forth in the excerpt above, mitigation measures “are not part of the original project design” and are intended to go “above-and-beyond” existing regulatory requirements. As such, the inclusion of these measures, based on the Project’s compliance with SDAPCD Rule 55 alone, is insufficient. By including several construction-related mitigation measures without properly committing to their implementation, the model may overestimate the mitigation measures’ ability to offset the Project’s potentially

<sup>15</sup> CalEEMod User Guide, available at: [http://www.aqmd.gov/docs/default-source/caleemod/01\\_user-39-s-guide2016-3-2\\_15november2017.pdf?sfvrsn=4](http://www.aqmd.gov/docs/default-source/caleemod/01_user-39-s-guide2016-3-2_15november2017.pdf?sfvrsn=4), p. 2, 9.

<sup>16</sup> “CEQA Portal Topic Paper Mitigation Measures.” AEP, February 2020, available at: <https://ceqaportal.org/tp/CEQA%20Mitigation%202020.pdf>, p. 5.

significant construction-related emissions and should not be relied upon to determine the significance of impacts on air quality.

*Incorrect Application of Mitigation Measures for Operational Emissions*

Review of the CalEEMod output files demonstrates that the “Ocean KAMP Project” model includes the following energy-related mitigation measure (see excerpt below) (Appendix I, pp. 137).

## **5.1 Mitigation Measures Energy**

### **Kilowatt Hours of Renewable Electricity Generated**

As previously mentioned, the CalEEMod User’s Guide requires any changes to model defaults be justified.<sup>17</sup> According to the “User Entered Comments & Non-Default Data” table, the justification provided for this inclusion is:

“Solar requirement (resort only) to meet City CAP per project energy Report (Syska Hennessy 2021).” (Appendix I, pp. 102)

Furthermore, the DSEIR states that the Project proposes to include an “[o]ffset of 50 percent of Project forecasted energy demand (a minimum of 5,000 kW) through photovoltaic panels or other renewable sources.” (p. 2-10) However, these justifications are insufficient.

Simply because the DSEIR proposes to incorporate energy-conserving measures into the overall project design does not justify the inclusion of these measures in the model. According to the *AEP CEQA Portal Topic Paper* on mitigation measures:

“While not ‘mitigation’, a good practice is to include those project design feature(s) that address environmental impacts in the mitigation monitoring and reporting program (MMRP). Often the MMRP is all that accompanies building and construction plans through the permit process. If the design features are not listed as important to addressing an environmental impact, it is easy for someone not involved in the original environmental process to approve a change to the project that could eliminate one or more of the design features without understanding the resulting environmental impact.”<sup>18</sup>

As you can see in the excerpt above, project design features (“PDFs”) are not mitigation measures and may be eliminated from the Project’s design. Thus, as the above-mentioned operational measure included in the model is not formally included as a mitigation measure, we cannot guarantee that it would be implemented, monitored, and enforced on the Project site. As a result, the inclusion of the energy-related operational mitigation measure in the model is incorrect. By including an operational mitigation measure without properly committing to its implementation, the model may underestimate

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<sup>17</sup> CalEEMod User Guide, available at: <http://www.caleemod.com/>, p. 2, 9

<sup>18</sup> “CEQA Portal Topic Paper Mitigation Measures.” AEP, February 2020, available at: <https://ceqaportal.org/tp/CEQA%20Mitigation%202020.pdf>, p. 6.

the Project's operational emissions and should not be relied upon to determine the significance of the impact.

### Updated Analysis Indicates a Potentially Significant Air Quality Impact

In an effort to more accurately estimate the Project's construction-related and operational emissions, we prepared updated an CalEEMod model, using the Project-specific information provided by the DSEIR. In our updated models, we included the correct hotel land use size; proportionally increased the individual construction phase lengths to match the proposed construction duration; and excluded the incorrect construction-related and operational mitigation measures (see Attachment A). Furthermore, our updated model fails to include the changes to operational vehicle emission factors that were included in the DESIR's model. However, because the DSEIR's model increased the operational vehicle emission factors, the omission presented in SWAPE's updated model decreases and underestimates emissions estimates.

Our updated analysis estimates that the VOC and NO<sub>x</sub> emissions associated with Project construction, as well as the PM<sub>10</sub> and PM<sub>2.5</sub> emissions associated with Project operation, exceed the applicable SDAPCD thresholds of 137-, 250-, 100-, and 67-pounds per day ("lbs/day"), respectively, as referenced by the DSEIR (p. 5.1-5, Table 5.1-2; p. 5.1-6, Table 5.1-3) (see table below).

Model	Construction		Operational	
	VOC	NO <sub>x</sub>	PM <sub>10</sub>	PM <sub>2.5</sub>
DSEIR	63.6	138.4	81.3	22.6
SWAPE	1,194.1	277.3	1,085.1	122.9
% Increase	1,778%	100%	1,235%	444%
SDAPCD Regional Threshold (lbs/day)	<b>137</b>	<b>250</b>	<b>100</b>	<b>67</b>
<i>Threshold Exceeded?</i>	Yes	Yes	Yes	Yes

As set forth in the excerpt above, construction-related VOC and NO<sub>x</sub> emissions, as well as operational PM<sub>10</sub> and PM<sub>2.5</sub> emissions, estimated by SWAPE, increase by approximately 1,778%, 100%, 1,235%, and 444%, respectively, and exceed the applicable SDAPCD significance thresholds. Thus, our updated modeling demonstrates that the Project would result in a significant air quality impact that was not previously identified or addressed in the DSEIR. As a result, a project-level EIR should be prepared to adequately assess and mitigate the potential air quality impacts that the Project may have on the surrounding environment.

### Diesel Particulate Matter Health Risk Emissions Inadequately Evaluated

The AQ & GHG Report concludes that the Project would not expose sensitive receptors to substantial pollutant concentrations without preparing a quantified construction and operational health risk analysis ("HRA") (Appendix J, p. 21). Specifically, regarding the potential TAC emissions resulting from Project construction, the AQ & GHG Report states:

"Implementation of the project would result in the use of heavy-duty construction equipment, haul trucks, on-site generators, and construction worker vehicles. These vehicles and equipment

could generate the TAC DPM. Generation of DPM from construction projects typically occurs in a localized area (e.g., at the project site) for a short period of time. Because construction activities and subsequent emissions vary depending on the phase of construction (e.g., grading, building construction), the construction-related emissions to which nearby receptors are exposed to would also vary throughout the construction period. During some equipment-intensive phases such as grading, construction-related emissions would be higher than other less equipment-intensive phases such as building construction. Concentrations of mobile-source DPM emissions are typically reduced by 70 percent at approximately 500 feet (CARB 2005) [...]

There is considerable uncertainty in trying to evaluate the cancer risk from projects that will only last a small fraction of a lifetime (Office of Environmental Health Hazard Assessment [OEHHA] 2015). Considering this information, the highly dispersive nature of DPM, and the fact that construction activities would occur at various locations throughout the project site, it is not anticipated that construction of the project would expose sensitive receptors to substantial DPM concentrations” (p. 21).

As demonstrated above, the AQ & GHG Report concludes that the Project would result in a less-than-significant construction-related health risk impact from diesel particulate matter (“DPM”) because of the highly dispersive nature of DPM, the short-term construction duration, and the fact that construction activities would occur at various locations throughout the project site. Neither the DSEIR nor the AQ & GHG Report analyze toxic air contaminant (“TAC”) emissions associated with Project *operation*. The DSEIR’s evaluation of the Project’s potential health risk impacts during construction activities, as well as the less-than-significant impact conclusion, is incorrect for three reasons.

First, by failing to quantitatively evaluate the Project’s construction-related and operational TAC emissions, the DSEIR and AQ & GHG Report fail to adequately evaluate the potential health risk impacts posed to nearby, existing sensitive receptors from these emissions. This is incorrect, as construction of the proposed Project would produce DPM emissions through the exhaust stacks of construction equipment over a potential construction period of approximately 26 months (Appendix I, p. 14, Table 5). Furthermore, Project operation would generate approximately 19,040 and 14,426 average weekday and weekend vehicle trips, respectively, which would generate additional exhaust emissions and continue to expose nearby sensitive receptors to DPM emissions (p. 5.1-5). However, the DSEIR and AQ & GHG Report fail to quantify Project-generated TACs or indicate the concentrations at which such pollutants would trigger adverse health effects. Thus, in failing to specify the nature and magnitude of the potential health risks posed to nearby sensitive receptors from the Project’s construction-related and operational TAC emissions, the DSEIR is inadequate as an informational document.

Second, the Office of Environmental Health Hazard Assessment (“OEHHA”), the organization responsible for providing guidance on conducting HRAs in California, released its most recent *Risk Assessment Guidelines: Guidance Manual for Preparation of Health Risk Assessments* in February 2015. This guidance document describes the types of projects that warrant the preparation of an HRA. The OEHHA document recommends that all short-term projects lasting at least two months be evaluated for cancer risks to nearby sensitive receptors. As the Project’s construction duration vastly exceeds the 2-month

requirement set forth by OEHHA, it is clear that the Project meets the threshold warranting a quantified HRA under OEHHA guidance. Furthermore, the OEHHA document recommends that exposure from projects lasting more than 6 months be evaluated for the duration of the project and recommends that an exposure duration of 30 years be used to estimate individual cancer risk for the maximally exposed individual resident (“MEIR”). Even though we were not provided with the expected lifetime of the Project, we can reasonably assume that the Project will operate for at least 30 years, if not more. Therefore, health risk impacts from Project operation must also be evaluated, as a 30-year exposure duration vastly exceeds the 6-month requirement set forth by OEHHA. These recommendations reflect the most recent state health risk policies, and as such, we recommend that an analysis of health risk impacts posed to nearby sensitive receptors from Project-generated DPM emissions be included in an EIR for the Project.

Third, by claiming a less than significant impact without conducting a quantified construction and operational HRA for nearby, existing sensitive receptors, the DSEIR fails to compare the excess health risk impact to the applicable SDAPCD threshold of 10 in one million and lacks evidence to support its conclusion that the health risk would be less-than-significant.<sup>19</sup> Thus, pursuant to CEQA and SDAPCD Guidelines, an analysis of the health risk posed to nearby, existing receptors from Project construction and operation should have been conducted.

### Screening-Level Analysis Demonstrates Significant Impacts

In order to conduct our screening-level risk assessment we relied upon AERSCREEN, which is a screening level air quality dispersion model.<sup>20</sup> The model replaced SCREEN3, and AERSCREEN is included in the OEHHA<sup>21</sup> and the California Air Pollution Control Officers Associated (“CAPCOA”)<sup>22</sup> guidance as the appropriate air dispersion model for Level 2 health risk screening assessments (“HRSA”). A Level 2 HRSA utilizes a limited amount of site-specific information to generate maximum reasonable downwind concentrations of air contaminants to which nearby sensitive receptors may be exposed. If an unacceptable air quality hazard is determined to be possible using AERSCREEN, a more refined modeling approach is required prior to approval of the Project.

We prepared a preliminary HRA of the Project’s construction and operational health risk impact to residential sensitive receptors using the annual PM<sub>10</sub> exhaust estimates from the DSEIR’s CalEEMod output files. Consistent with recommendations set forth by OEHHA, we assumed residential exposure begins during the third trimester stage of life. The DSEIR’s CalEEMod model indicates that construction

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<sup>19</sup> See: “California Environmental Quality Act Significance Determination Thresholds.” County of San Diego, July 2016, available at: [https://www.sandiego.gov/sites/default/files/july\\_2016\\_ceqa\\_thresholds\\_final\\_0.pdf](https://www.sandiego.gov/sites/default/files/july_2016_ceqa_thresholds_final_0.pdf), p. 7; and “South Coast AQMD Air Quality Significance Thresholds.” SCAQMD, April 2019, available at: <http://www.aqmd.gov/docs/default-source/ceqa/handbook/scaqmd-air-quality-significance-thresholds.pdf>.

<sup>20</sup> U.S. EPA (April 2011) AERSCREEN Released as the EPA Recommended Screening Model, [http://www.epa.gov/ttn/scram/guidance/clarification/20110411\\_AERSCREEN\\_Release\\_Memo.pdf](http://www.epa.gov/ttn/scram/guidance/clarification/20110411_AERSCREEN_Release_Memo.pdf)

<sup>21</sup> OEHHA (February 2015) Risk Assessment Guidelines Guidance Manual for Preparation of Health Risk Assessments, <https://oehha.ca.gov/media/downloads/cnrn/2015guidancemanual.pdf>.

<sup>22</sup> CAPCOA (July 2009) Health Risk Assessments for Proposed Land Use Projects, [http://www.capcoa.org/wp-content/uploads/2012/03/CAPCOA\\_HRA\\_LU\\_Guidelines\\_8-6-09.pdf](http://www.capcoa.org/wp-content/uploads/2012/03/CAPCOA_HRA_LU_Guidelines_8-6-09.pdf).

activities will generate approximately 531 pounds of DPM over the 791-day construction period.<sup>23</sup> The AERSCREEN model relies on a continuous average emission rate to simulate maximum downward concentrations from point, area, and volume emission sources. To account for the variability in equipment usage and truck trips over Project construction, we calculated an average DPM emission rate by the following equation:

$$\text{Emission Rate} \left( \frac{\text{grams}}{\text{second}} \right) = \frac{530.8 \text{ lbs}}{791 \text{ days}} \times \frac{453.6 \text{ grams}}{\text{lbs}} \times \frac{1 \text{ day}}{24 \text{ hours}} \times \frac{1 \text{ hour}}{3,600 \text{ seconds}} = 0.00352 \text{ g/s}$$

Using this equation, we estimated a construction emission rate of 0.00352 grams per second (“g/s”). Subtracting the 791-day construction period from the total residential duration of 30 years, we assumed that after Project construction, the sensitive receptors would be exposed to the Project’s operational DPM for an additional 27.83 years. The DSEIR’s operational CalEEMod emissions indicate that operational activities will generate approximately 360 pounds of DPM per year throughout operation. Applying the same equation used to estimate the construction DPM rate, we estimated the following emission rate for Project operation:

$$\text{Emission Rate} \left( \frac{\text{grams}}{\text{second}} \right) = \frac{360.0 \text{ lbs}}{365 \text{ days}} \times \frac{453.6 \text{ grams}}{\text{lbs}} \times \frac{1 \text{ day}}{24 \text{ hours}} \times \frac{1 \text{ hour}}{3,600 \text{ seconds}} = 0.00518 \text{ g/s}$$

Using this equation, we estimated an operational emission rate of 0.00518 g/s. Construction and operation were simulated as a 92-acre rectangular area source in AERSCREEN, with approximate dimensions of 862.91 meters by 431.46 meters. A release height of three meters was selected to represent the height of stacks of operational equipment and other heavy-duty vehicles, and an initial vertical dimension of one and a half meters was used to simulate instantaneous plume dispersion upon release. An urban meteorological setting was selected with model-default inputs for wind speed and direction distribution.

The AERSCREEN model generates maximum reasonable estimates of single-hour DPM concentrations from the Project site. EPA guidance suggests that in screening procedures, the annualized average concentration of an air pollutant to be estimated by multiplying the single-hour concentration by 10%.<sup>24</sup> According to the AQ & GHG Report, “[t]he closest existing sensitive receptors to the project site are single-family homes located approximately 100 feet east of the project site,” or roughly 30 meters (p. 12). However, a review of the AERSCREEN output files demonstrates that the maximally exposed receptor is located approximately 425 meters from the Project site. Thus, the single-hour concentration estimated by AERSCREEN for Project construction is approximately 0.5971 µg/m<sup>3</sup> DPM at approximately 425 meters downwind. Multiplying this single-hour concentration by 10%, we get an annualized average concentration of 0.05971 µg/m<sup>3</sup> for Project construction at the MEIR. For Project operation, the single-hour concentration estimated by AERSCREEN is 0.8777 µg/m<sup>3</sup> DPM at approximately 425 meters

<sup>23</sup> See Attachment B for calculations.

<sup>24</sup> U.S. EPA (October 1992) Screening Procedures for Estimating the Air Quality Impact of Stationary Sources Revised, [http://www.epa.gov/ttn/scram/guidance/guide/EPA-454R-92-019\\_OCR.pdf](http://www.epa.gov/ttn/scram/guidance/guide/EPA-454R-92-019_OCR.pdf).

downwind. Multiplying this single-hour concentration by 10%, we get an annualized average concentration of 0.08777  $\mu\text{g}/\text{m}^3$  for Project operation at the MEIR.

We calculated the excess cancer risk to the MEIR using applicable HRA methodologies prescribed by OEHHA, as recommended by SDAPCD.<sup>25</sup> Consistent with the 791-day construction schedule, the annualized average concentration for construction was used for the entire third trimester of pregnancy (0.25 years) and the first 1.92 years of the infantile stage of life (0 – 2 years). The annualized average concentration for operation was used for the remainder of the 30-year exposure period, which makes up the latter 0.08 years of the infantile stage of life, as well as the entire child stage of life (2 – 16 years) and adult stage of life (16 – 30 years).

Consistent with OEHHA guidance, as recommended by SDAPCD, we used Age Sensitivity Factors (“ASF(s)”) to account for the heightened susceptibility of young children to the carcinogenic toxicity of air pollution.<sup>26, 27</sup> According to this guidance, the quantified cancer risk should be multiplied by a factor of ten during the third trimester of pregnancy and during the first two years of life (infant) as well as multiplied by a factor of three during the child stage of life (2 – 16 years). Furthermore, in accordance with guidance set forth by OEHHA, we used the 95<sup>th</sup> percentile breathing rates for infants.<sup>28</sup> Finally, consistent with OEHHA guidance, we used a Fraction of Time At Home (“FAH”) Value of 1 for the 3<sup>rd</sup> trimester and infant receptors.<sup>29</sup> We used a cancer potency factor of 1.1 ( $\text{mg}/\text{kg}\text{-day}$ )<sup>-1</sup> and an averaging time of 25,550 days. The results of our calculations are shown in the tables below.

The Maximally Exposed Individual at an Existing Residential Receptor							
Age Group	Emissions Source	Duration (years)	Concentration ( $\mu\text{g}/\text{m}^3$ )	Breathing Rate ( $\text{L}/\text{kg}\text{-day}$ )	Cancer Risk (without ASFs*)	ASF	Cancer Risk (with ASFs*)
3rd Trimester	Construction	0.25	0.05971	361	8.12E-08	10	<b>8.12E-07</b>
	<i>Construction</i>	<i>1.92</i>	<i>0.05971</i>	<i>1090</i>	<i>1.88E-06</i>		

<sup>25</sup> “Supplemental Guidelines for Submission of Rule 1200 Health Risk Assessments (HRAs).” SDAPCD, July 2019, available at: <https://www.sandiegocounty.gov/content/dam/sdc/apcd/PDF/Toxics Program/APCD 1200 Supplemental Guidelines.pdf>.

<sup>26</sup> “Risk Assessment Guidelines Guidance Manual for Preparation of Health Risk Assessments.” OEHHA, February 2015, available at: <https://oehha.ca.gov/media/downloads/crn/2015guidancemanual.pdf>.

<sup>27</sup> “Supplemental Guidelines for Submission of Rule 1200 Health Risk Assessments (HRAs).” SDAPCD, July 2019, available at: <https://www.sandiegocounty.gov/content/dam/sdc/apcd/PDF/Toxics Program/APCD 1200 Supplemental Guidelines.pdf>.

<sup>28</sup> SCAQMD (Jun 2015) Supplemental Guidelines for Preparing Risk Assessments for the Air Toxics ‘Hot Spots’ Information and Assessment Act, p. 19, <http://www.aqmd.gov/docs/default-source/planning/risk-assessment/ab2588-risk-assessment-guidelines.pdf?sfvrsn=6>; see also OEHHA (Feb 2015) Risk Assessment Guidelines Guidance Manual for Preparation of Health Risk Assessments, <https://oehha.ca.gov/media/downloads/crn/2015guidancemanual.pdf>.

<sup>29</sup> SCAQMD (Aug 2017) Risk Assessment Procedures for Rules 1401, 1401.1, and 212, p. 7, [http://www.aqmd.gov/docs/default-source/rule-book/Proposed-Rules/1401/riskassessmentprocedures\\_2017\\_080717.pdf](http://www.aqmd.gov/docs/default-source/rule-book/Proposed-Rules/1401/riskassessmentprocedures_2017_080717.pdf).

	Operation	0.08	0.08777	1090	1.19E-07			
Infant (Age 0 - 2)	Total	2				2.00E-06	10	2.00E-05
Child (Age 2 - 16)	Operation	14	0.08777	572		1.06E-05	3	3.18E-05
Adult (Age 16 - 30)	Operation	14	0.08777	261		3.53E-06	1	3.53E-06
<b>Lifetime</b>		<b>30</b>				<b>1.62E-05</b>		<b>5.61E-05</b>
* We, along with CARB and SCAQMD, recommend using the more updated and health protective 2015 OEHHA guidance, which includes ASFs.								

As demonstrated in the table above, the excess cancer risks for the 3<sup>rd</sup> trimester of pregnancy, infants, children, and adults at the MEIR located approximately 425 meters away, over the course of Project construction and operation, utilizing ASFs, are approximately 0.812, 20.0, 31.8, and 3.53 in one million, respectively. The excess cancer risk over the course of a residential lifetime (30 years), utilizing ASFs, is approximately 56.1 in one million. The infant, child, and lifetime cancer risks exceed the SDAPCD threshold of 10 in one million, thus resulting in a potentially significant impact that was not previously addressed or identified in the DSEIR.

Utilizing ASFs is the most conservative, health-protective analysis according to the most recent guidance by OEHHA and reflects recommendations from the air district. Results without ASFs are presented in the table above, although we do not recommend utilizing these values for health risk analysis. Regardless, the excess cancer risks for the 3<sup>rd</sup> trimester of pregnancy, infants, children, and adults at the MEIR located approximately 425 meters away, over the course of Project construction and operation, without ASFs, are approximately 0.0812, 2.00, 10.6, and 3.53 in one million, respectively. The excess cancer risk over the course of a residential lifetime (30 years), without ASFs, is approximately 16.2 in one million. The child and lifetime cancer risks exceed the SDAPCD threshold of 10 in one million, thus resulting in a potentially significant impact that was not previously addressed or identified in the DSEIR. While we recommend the use of ASFs, the Project's cancer risk without ASFs, as estimated by SWAPE, exceeds the SDAPCD threshold regardless.

An agency must include an analysis of health risks that connects the Project's air emissions with the health risk posed by those emissions. Our analysis represents a screening-level HRA, which is known to be conservative and tends to err on the side of health protection. The purpose of the screening-level construction and operational HRA shown above is to demonstrate the link between the proposed Project's emissions and the potential health risk. Our screening-level HRA demonstrates that construction and operation of the Project could result in a significant health risk impact, when correct exposure assumptions and up-to-date, applicable guidance are used. Thus, a project-level EIR should be prepared, including a quantified air pollution model as well as an updated, quantified refined health risk assessment which adequately and accurately evaluates health risk impacts associated with both Project construction and operation.

## Greenhouse Gas

### Failure to Adequately Evaluate Impacts from Greenhouse Gas Emissions

The DSEIR estimates that the Project would generate net annual greenhouse gas (“GHG”) emissions of 20,195.9 metric tons of carbon dioxide equivalents per year (“MT CO<sub>2</sub>e/year”) (p. 5.1-13, Table 5.1-4). Furthermore, based on a service population of 6,725 people, the DSEIR estimates a service population efficiency value of 3.0 metric tons of carbon dioxide equivalents per service population per year (“MT CO<sub>2</sub>e/SP/year”), which would not exceed the City’s 2025 Efficiency Threshold of 3.5 MT CO<sub>2</sub>e/SP/year (see excerpt below) (p. 5.1-13, Table 5.1-4).

**Table 5.1-4  
OPERATIONAL GHG EMISSIONS**

Source	Emissions (MT CO <sub>2</sub> e/year)
Area	8.7
Energy	3,745.5
Vehicular (Mobile)	13,381.4
Solid Waste	2,413.4
Water and Wastewater	403.9
<i>Amortized Construction Emissions</i>	<i>243.0</i>
<b>Total Annual Emissions<sup>1</sup></b>	<b>20,195.9</b>
<b>Emissions per service population (6,725) per year</b>	<b>3.0</b>
<i>2025 Efficiency Threshold (MT CO<sub>2</sub>e/service population/year)</i>	<i>3.5</i>
<b>Exceed Threshold?</b>	<b>No</b>

Source: HELIX 2021b

<sup>1</sup> Totals may not sum due to rounding.

MT = metric ton; CO<sub>2</sub>e = carbon dioxide equivalent

As a result, the DSEIR concludes:

“As shown, the Project’s operational GHG emissions would be approximately 3.0 MT CO<sub>2</sub>e per service population per year, which would be below the 2025 City threshold of 3.5 MT CO<sub>2</sub>e per service population per year. The Project, by achieving the City’s threshold, would not conflict with the goals of the City’s CAP and may be seen to achieving its fair share of the state’s reduction target. Therefore, the Project would not generate GHG emissions that may have a significant impact on the environment, and the impact would be less than significant” (p. 5.1-13).

However, the DSEIR’s GHG analysis, as well as the subsequent less-than-significant impact conclusion, is incorrect for four reasons.

- (1) The DSEIR’s quantitative GHG analysis relies upon an incorrect and unsubstantiated air model;
- (2) The DSEIR relies upon an incorrect service population;
- (3) The DSEIR fails to indicate a potentially significant GHG impact; and
- (4) The DSEIR fails to demonstrate consistency with the City’s CAP.

### 1) *Incorrect and Unsubstantiated Quantitative Analysis of Emissions*

As previously stated, the DSEIR estimated that the Project would generate net annual GHG emissions of 20,195.9 MT CO<sub>2</sub>e/year (p. 5.1-13, Table 5.1-4). However, the quantitative GHG analysis provided in the DSEIR is unsubstantiated. As previously discussed, when we reviewed the Project's CalEEMod output files, provided in AQ & GHG Technical Report as Appendix I to the DSEIR, we found that several of the values inputted into the model are not consistent with information disclosed in the DSEIR. As a result, the model underestimates the Project's emissions, and the quantitative GHG analysis provided in the DSEIR should not be relied upon to determine Project significance. An EIR should be prepared that sets forth an accurate quantitative analysis of emissions to adequately assess the potential GHG impacts that construction and operation of the proposed Project may have on the surrounding environment.

### 2) *Reliance Upon an Incorrect Service Population*

As discussed above, the DSEIR concluded that the Project would result in a service population efficiency value of 3.0 MT CO<sub>2</sub>e/SP/year, based on a service population of 6,725 people (p. 5.1-13, Table 5.1-4). Specifically, the DSEIR states:

"The service population would be 2,036 residents plus 4,689 employees and visitors/customers for a total of 6,725" (p. 5.1-13).

However, the DSEIR's quantitative GHG analysis is unsubstantiated, as it relies upon an incorrect service population. According to CAPCOA's *CEQA & Climate Change* report, service population is defined as "the sum of the number of residents and the number of jobs supported by the project."<sup>30</sup> Thus, the DSEIR's inclusion of customers and visitors in the Project's service population estimate is incorrect and results in a gross overestimation. Rather, the DSEIR indicates:

"The Project would construct up to 700 residential units, a 300-room hotel, and up to 126,000 SF of commercial space that would introduce approximately 2,036 residents and 298 employees to the site" (p. 4.4-7).

Thus, the DSEIR should have estimated a service population of 2,334 people.<sup>31</sup> As such, the DSEIR's service population is overestimated, and the DSEIR's quantitative GHG analysis should not be relied upon.

### 3) *Failure to Identify a Potentially Significant Impact*

When utilizing a correct service population value and applying the City's 2025 Efficiency Threshold of 3.5 MT CO<sub>2</sub>e/SP/year, as well as the County's bright-line threshold of 900 MT CO<sub>2</sub>e/year, the DSEIR's incorrect and unsubstantiated air model indicates a potentially significant GHG impact (see excerpt below).<sup>32</sup> As previously stated, the DSEIR estimates that the Project would generate net annual GHG

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<sup>30</sup> CAPCOA (Jan. 2008) *CEQA & Climate Change*, p. 71-72, <http://www.capcoa.org/wp-content/uploads/2012/03/CAPCOA-White-Paper.pdf>.

<sup>31</sup> Calculated: 298 employees + 2,036 residents = 2,334 service population.

<sup>32</sup> "RECOMMENDED APPROACH TO ADDRESSING CLIMATE CHANGE IN CEQA DOCUMENTS." County of San Diego Planning & Development Services, January 2015, *available at*:

emissions of 20,195.9 MT CO<sub>2</sub>e/year (p. 5.1-13, Table 5.1-4). Furthermore, as described above, we estimate a service population would be 2,334 people. Dividing the Project’s GHG emissions, as estimated by the DSEIR, by a service population value of 2,334 people, we find that the Project would emit approximately 8.65 MT CO<sub>2</sub>e/SP/year (see table below).<sup>33</sup>

Greenhouse Gas Emissions	
Source	DSEIR Model
Total Annual Emissions (MT CO <sub>2</sub> e/year)	20,195.9
Bright-line Threshold	900
Service Population	2,334
Service Population Efficiency (MT CO <sub>2</sub> e/SP/year)	8.65
2025 Efficiency Threshold	3.50
Exceed?	Yes

As demonstrated above, when we compare the Project’s net annual GHG emission and service population efficiency value to the County’s bright-line threshold of 900 MT CO<sub>2</sub>e/year and the City’s 2025 Efficiency Threshold of 3.5 MT CO<sub>2</sub>e/SP/year, we find that the Project would result in a significant GHG impact not previously identified or addressed by the DSEIR. Therefore, a project-level EIR should be prepared for the Project, and mitigation should be implemented where necessary, per CEQA Guidelines.

#### 4) *Failure to Demonstrate Consistency with the City’s CAP*

As previously discussed, the DSEIR claims that the Project would be compliant with the City’s Climate Action Plan (“CAP”). Specifically, according to the DSEIR:

“The City CAP also requires that projects located within a Smart Growth Opportunity Area (SGOA) must develop uses consistent with the land use designation (commercial) and include elements consistent with the character of the SGOA type. The Project is consistent with these requirements, and therefore supports the CAP and its sustainability goals. Also consistent with the CAP, the Project would:

- Provide connection(s) for recycled water integration into the City’s recycled water network when available (thereby transferring Project gray water into the City treatment system and minimizing on-site future use of potable water by allowing receipt of recycled rather than potable water for irrigation, etc.);
- Offset of 50 percent of Project forecasted energy demand (a minimum of 5,000 kW) through photovoltaic panels or other renewable sources;

<https://www.sandiegocounty.gov/content/dam/sdc/pds/ceqa/Sweetwater-Place/PDS2014-TM-5588-Greenhouse-Gas-Guidance-2015.pdf>, p. 2.

<sup>33</sup> Calculated: (308.26 MT CO<sub>2</sub>e/year) / (60 service population) = (5.1 MT CO<sub>2</sub>e/SP/year).

- Prewire six percent of Project parking spaces and provide fully operable electric vehicle charging stations for 50 percent of that number;
- Provide preferential parking spaces (12 percent of the parking spaces) for clean air vehicles; and
- Incorporate shade trees (as additionally described under the Landscaping discussion)” (p. 2-10).

As demonstrated above, the DSEIR concludes that the Project would be consistent with the City’s CAP, including requirements regarding smart growth, alternative-fueled vehicle infrastructure, alternative-fueled vehicle parking, transportation demand management, recycled water, and tree canopy.<sup>34</sup> However, simply stating how the Project would be consistent with the City’s CAP is insufficient, as the DSEIR should have incorporated such sustainable design elements as formal mitigation measures. According to the Association of Environmental Professionals’ (“AEP”) *CEQA Portal Topic Paper* on mitigation measures:

“While not ‘mitigation’, a good practice is to include those project design feature(s) that address environmental impacts in the mitigation monitoring and reporting program (MMRP). Often the MMRP is all that accompanies building and construction plans through the permit process. If the design features are not listed as important to addressing an environmental impact, it is easy for someone not involved in the original environmental process to approve a change to the project that could eliminate one or more of the design features without understanding the resulting environmental impact.”<sup>35</sup>

As you can see in the excerpts above, design features that are not formally included as mitigation measures may be eliminated from the Project’s design altogether. Thus, as the sustainability features are not formally included as mitigation measures in the DSEIR, we cannot guarantee that they would be implemented, monitored, and enforced on the Project site. As such, the Project’s consistency with the City’s CAP is unsubstantiated, and the DSEIR’s GHG analysis should not be relied upon to determine Project significance.

**Feasible Mitigation Measures under SCAG’s RTP/SCS Available to Reduce Emissions**  
Our analysis demonstrates that the Project would result in a potentially significant air quality, health risk, and GHG impacts that must be mitigated. We recommend that the DSEIR implement all product design features (“PDFs”), such as incorporating recycled water, implementing photovoltaic panels to offset 50% of the Project’s energy demand, and including EV charging stations, as formal mitigation measures. As a result, we could guarantee that these measures would be implemented, monitored, and enforced on the Project site.

<sup>34</sup> “Oceanside Climate Action Plan” City of Oceanside, January 2019, available at: <https://www.ci.oceanside.ca.us/civicax/filebank/blobdload.aspx?blobid=48919>, p. 4-20 – 4-21; Table 19 Project Review Checklist.

<sup>35</sup> “CEQA Portal Topic Paper Mitigation Measures.” AEP, February 2020, available at: <https://ceqaportal.org/tp/CEQA%20Mitigation%202020.pdf>, p. 6.

Furthermore, in an effort to reduce the Project’s emissions, we identified several mitigation measures that are applicable to the proposed Project. Therefore, to reduce the Project’s emissions, we recommend consideration of SCAG’s 2020 RTP/SCS PEIR’s Air Quality Project Level Mitigation Measures (“PMM-AQ-1”) and Greenhouse Gas Project Level Mitigation Measures (“PMM-GHG-1”), as described below.<sup>36</sup>

<b>SCAG RTP/SCS 2020-2045</b>
<b>Air Quality Project Level Mitigation Measures – PMM-AQ-1:</b>
In accordance with provisions of sections 15091(a)(2) and 15126.4(a)(1)(B) of the <i>State CEQA Guidelines</i> , a Lead Agency for a project can and should consider mitigation measures to reduce substantial adverse effects related to violating air quality standards. Such measures may include the following or other comparable measures identified by the Lead Agency:
a) Minimize land disturbance.
b) Suspend grading and earth moving when wind gusts exceed 25 miles per hour unless the soil is wet enough to prevent dust plumes.
c) Cover trucks when hauling dirt.
d) Stabilize the surface of dirt piles if not removed immediately.
e) Limit vehicular paths on unpaved surfaces and stabilize any temporary roads.
f) Minimize unnecessary vehicular and machinery activities.
g) Sweep paved streets at least once per day where there is evidence of dirt that has been carried on to the roadway.
h) Revegetate disturbed land, including vehicular paths created during construction to avoid future off-road vehicular activities.
j) Require contractors to assemble a comprehensive inventory list (i.e., make, model, engine year, horsepower, emission rates) of all heavy-duty off-road (portable and mobile) equipment (50 horsepower and greater) that could be used an aggregate of 40 or more hours for the construction project. Prepare a plan for approval by the applicable air district demonstrating achievement of the applicable percent reduction for a CARB-approved fleet.
k) Ensure that all construction equipment is properly tuned and maintained.
l) Minimize idling time to 5 minutes—saves fuel and reduces emissions.
m) Provide an operational water truck on-site at all times. Use watering trucks to minimize dust; watering should be sufficient to confine dust plumes to the project work areas. Sweep paved streets at least once per day where there is evidence of dirt that has been carried on to the roadway.
n) Utilize existing power sources (e.g., power poles) or clean fuel generators rather than temporary power generators.

<sup>36</sup> “4.0 Mitigation Measures.” Connect SoCal Program Environmental Impact Report Addendum #1, September 2020, available at: [https://scag.ca.gov/sites/main/files/file-attachments/fpeir\\_connectsocial\\_addendum\\_4\\_mitigationmeasures.pdf?1606004420](https://scag.ca.gov/sites/main/files/file-attachments/fpeir_connectsocial_addendum_4_mitigationmeasures.pdf?1606004420), p. 4.0-2 – 4.0-10; 4.0-19 – 4.0-23; See also: “Certified Final Connect SoCal Program Environmental Impact Report.” Southern California Association of Governments (SCAG), May 2020, available at: <https://scag.ca.gov/peir>.

o) Develop a traffic plan to minimize traffic flow interference from construction activities. The plan may include advance public notice of routing, use of public transportation, and satellite parking areas with a shuttle service. Schedule operations affecting traffic for off-peak hours. Minimize obstruction of through-traffic lanes. Provide a flag person to guide traffic properly and ensure safety at construction sites.

p) As appropriate require that portable engines and portable engine-driven equipment units used at the project work site, with the exception of on-road and off-road motor vehicles, obtain CARB Portable Equipment Registration with the state or a local district permit. Arrange appropriate consultations with the CARB or the District to determine registration and permitting requirements prior to equipment operation at the site.

q) Require projects within 500 feet of residences, hospitals, or schools to use Tier 4 equipment for all engines above 50 horsepower (hp) unless the individual project can demonstrate that Tier 4 engines would not be required to mitigate emissions below significance thresholds.

u) Projects should work with local cities and counties to install adequate signage that prohibits truck idling in certain locations (e.g., near schools and sensitive receptors).

y) Projects that will introduce sensitive receptors within 500 feet of freeways and other sources should consider installing high efficiency of enhanced filtration units, such as Minimum Efficiency Reporting Value (MERV) 13 or better. Installation of enhanced filtration units can be verified during occupancy inspection prior to the issuance of an occupancy permit.

z) Develop an ongoing monitoring, inspection, and maintenance program for the MERV filters.

aa) Consult the SCAG Environmental Justice Toolbox for potential measures to address impacts to low-income and/or minority communities.

bb) The following criteria related to diesel emissions shall be implemented on by individual project sponsors as appropriate and feasible [...] <sup>37</sup>

cc) Project should exceed Title-24 Building Envelope Energy Efficiency Standards (California Building Standards Code). <sup>37</sup>

#### **Greenhouse Gas Project Level Mitigation Measures – PMM-GHG-1**

In accordance with provisions of sections 15091(a)(2) and 15126.4(a)(1)(B) of the *State CEQA Guidelines*, a Lead Agency for a project can and should consider mitigation measures to reduce substantial adverse effects related to violating air quality standards. Such measures may include the following or other comparable measures identified by the Lead Agency:

- a) Integrate green building measures consistent with CALGreen (California Building Code Title 24), local building codes and other applicable laws, into project design including
- i. Use energy efficient materials in building design, construction, rehabilitation, and retrofit.
  - ii. Install energy-efficient lighting, heating, and cooling systems (cogeneration); water heaters; appliances; equipment; and control systems.
  - iii. Reduce lighting, heating, and cooling needs by taking advantage of light-colored roofs, trees for shade, and sunlight.
  - iv. Incorporate passive environmental control systems that account for the characteristics of the natural environment.
  - v. Use high-efficiency lighting and cooking devices.
  - vi. Incorporate passive solar design.

<sup>37</sup> See more for specifics: "4.0 Mitigation Measures." Connect SoCal Program Environmental Impact Report Addendum #1, September 2020, available at: [https://scag.ca.gov/sites/main/files/file-attachments/fpeir\\_connectsocial\\_addendum\\_4\\_mitigationmeasures.pdf?1606004420](https://scag.ca.gov/sites/main/files/file-attachments/fpeir_connectsocial_addendum_4_mitigationmeasures.pdf?1606004420), p. 4.0-2 – 4.0-10; 4.0-19 – 4.0-23.

<ul style="list-style-type: none"> <li>vii. Use high-reflectivity building materials and multiple glazing.</li> <li>viii. Prohibit gas-powered landscape maintenance equipment.</li> <li>ix. Install electric vehicle charging stations.</li> <li>x. Reduce wood burning stoves or fireplaces.</li> <li>xi. Provide bike lanes accessibility and parking at residential developments.</li> </ul>
<p>b) Reduce emissions resulting from projects through implementation of project features, project design, or other measures, such as those described in Appendix F of the State CEQA Guidelines.</p>
<p>c) Include off-site measures to mitigate a project's emissions.</p>
<p>d) Measures that consider incorporation of Best Available Control Technology (BACT) during design, construction and operation of projects to minimize GHG emissions, including but not limited to:</p> <ul style="list-style-type: none"> <li>i. Use energy and fuel-efficient vehicles and equipment;</li> <li>ii. Deployment of zero- and/or near zero emission technologies;</li> <li>iii. Use lighting systems that are energy efficient, such as LED technology;</li> <li>iv. Use the minimum feasible amount of GHG-emitting construction materials;</li> <li>v. Use cement blended with the maximum feasible amount of flash or other materials that reduce GHG emissions from cement production;</li> <li>vi. Incorporate design measures to reduce GHG emissions from solid waste management through encouraging solid waste recycling and reuse;</li> <li>vii. Incorporate design measures to reduce energy consumption and increase use of renewable energy;</li> <li>viii. Incorporate design measures to reduce water consumption;</li> <li>ix. Use lighter-colored pavement where feasible;</li> <li>x. Recycle construction debris to maximum extent feasible;</li> <li>xi. Plant shade trees in or near construction projects where feasible; and</li> <li>xii. Solicit bids that include concepts listed above.</li> </ul>
<p>e) Measures that encourage transit use, carpooling, bike-share and car-share programs, active transportation, and parking strategies, including, but not limited to the following:</p> <ul style="list-style-type: none"> <li>i. Promote transit-active transportation coordinated strategies;</li> <li>ii. Increase bicycle carrying capacity on transit and rail vehicles;</li> <li>iii. Improve or increase access to transit;</li> <li>iv. Increase access to common goods and services, such as groceries, schools, and day care;</li> <li>v. Incorporate affordable housing into the project;</li> <li>vi. Incorporate the neighborhood electric vehicle network;</li> <li>vii. Orient the project toward transit, bicycle and pedestrian facilities;</li> <li>viii. Improve pedestrian or bicycle networks, or transit service;</li> <li>ix. Provide traffic calming measures;</li> <li>x. Provide bicycle parking;</li> <li>xi. Limit or eliminate park supply;</li> <li>xii. Unbundle parking costs;</li> <li>xiii. Provide parking cash-out programs;</li> <li>xiv. Implement or provide access to commute reduction program;</li> </ul>
<p>f) Incorporate bicycle and pedestrian facilities into project designs, maintaining these facilities, and providing amenities incentivizing their use; and planning for and building local bicycle projects that connect with the regional network;</p>

g) Improving transit access to rail and bus routes by incentives for construction and transit facilities within developments, and/or providing dedicated shuttle service to transit stations; and
h) Adopting employer trip reduction measures to reduce employee trips such as vanpool and carpool programs, providing end-of-trip facilities, and telecommuting programs including but not limited to measures that: <ul style="list-style-type: none"> <li>i. Provide car-sharing, bike sharing, and ride-sharing programs;</li> <li>ii. Provide transit passes;</li> <li>iii. Shift single occupancy vehicle trips to carpooling or vanpooling, for example providing ride-matching services;</li> <li>iv. Provide incentives or subsidies that increase that use of modes other than single-occupancy vehicle;</li> <li>v. Provide on-site amenities at places of work, such as priority parking for carpools and vanpools, secure bike parking, and showers and locker rooms;</li> <li>vi. Provide employee transportation coordinators at employment sites;</li> <li>vii. Provide a guaranteed ride home service to users of non-auto modes.</li> </ul>
i) Designate a percentage of parking spaces for ride-sharing vehicles or high-occupancy vehicles, and provide adequate passenger loading and unloading for those vehicles;
j) Land use siting and design measures that reduce GHG emissions, including: <ul style="list-style-type: none"> <li>i. Developing on infill and brownfields sites;</li> <li>ii. Building compact and mixed-use developments near transit;</li> <li>iii. Retaining on-site mature trees and vegetation, and planting new canopy trees;</li> <li>iv. Measures that increase vehicle efficiency, encourage use of zero and low emissions vehicles, or reduce the carbon content of fuels, including constructing or encouraging construction of electric vehicle charging stations or neighborhood electric vehicle networks, or charging for electric bicycles; and</li> <li>v. Measures to reduce GHG emissions from solid waste management through encouraging solid waste recycling and reuse.</li> </ul>
l) Require at least five percent of all vehicle parking spaces include electric vehicle charging stations, or at a minimum, require the appropriate infrastructure to facilitate sufficient electric charging for passenger vehicles and trucks to plug-in.
m) Encourage telecommuting and alternative work schedules, such as: <ul style="list-style-type: none"> <li>i. Staggered starting times</li> <li>ii. Flexible schedules</li> <li>iii. Compressed work weeks</li> </ul>
n) Implement commute trip reduction marketing, such as: <ul style="list-style-type: none"> <li>i. New employee orientation of trip reduction and alternative mode options</li> <li>ii. Event promotions</li> <li>iii. Publications</li> </ul>
o) Implement preferential parking permit program
p) Implement school pool and bus programs
q) Price workplace parking, such as: <ul style="list-style-type: none"> <li>i. Explicitly charging for parking for its employees;</li> <li>ii. Implementing above market rate pricing;</li> <li>iii. Validating parking only for invited guests;</li> <li>iv. Not providing employee parking and transportation allowances; and</li> <li>v. Educating employees about available alternatives.</li> </ul>

These measures offer a cost-effective, feasible way to incorporate lower-emitting design features into the proposed Project, which subsequently, reduce emissions released during Project construction and operation. A project-level EIR should be prepared to include all feasible mitigation measures, as well as include an updated air quality, health risk, and GHG analysis to ensure that the necessary mitigation measures are implemented to reduce emissions to below thresholds. The EIR should also demonstrate a commitment to the implementation of these measures prior to Project approval, to ensure that the Project's significant emissions are reduced to the maximum extent possible.

#### Disclaimer

SWAPE has received limited discovery regarding this project. Additional information may become available in the future; thus, we retain the right to revise or amend this report when additional information becomes available. Our professional services have been performed using that degree of care and skill ordinarily exercised, under similar circumstances, by reputable environmental consultants practicing in this or similar localities at the time of service. No other warranty, expressed or implied, is made as to the scope of work, work methodologies and protocols, site conditions, analytical testing results, and findings presented. This report reflects efforts which were limited to information that was reasonably accessible at the time of the work, and may contain informational gaps, inconsistencies, or otherwise be incomplete due to the unavailability or uncertainty of information obtained or provided by third parties.

Sincerely,



Matt Hagemann, P.G., C.Hg.



Paul E. Rosenfeld, Ph.D.

Attachment A: CalEEMod Output Files  
Attachment B: Health Risk Calculations  
Attachment C: AERSCREEN Output Files  
Attachment D: Matt Hagemann CV  
Attachment E: Paul E. Rosenfeld CV

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**Ocean KAMP Project**  
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**1.0 Project Characteristics**

**1.1 Land Usage**

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Other Asphalt Surfaces	19.75	Acre	19.75	860,310.00	0
Parking Lot	9.40	Acre	9.40	409,464.00	0
City Park	9.94	Acre	9.94	432,986.40	0
Hotel	300.00	Room	4.32	486,100.00	0
Recreational Swimming Pool	203.50	1000sqft	4.67	203,500.00	0
Condo/Townhouse	700.00	Dwelling Unit	27.40	700,000.00	2036
Strip Mall	126.40	1000sqft	1.52	126,400.00	0

**1.2 Other Project Characteristics**

Urbanization	Urban	Wind Speed (m/s)	2.6	Precipitation Freq (Days)	40
Climate Zone	13			Operational Year	2024

Utility Company San Diego Gas & Electric

CO2 Intensity (lb/MW/hr)	720.49	CH4 Intensity (lb/MW/hr)	0.029	N2O Intensity (lb/MW/hr)	0.006
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**1.3 User Entered Comments & Non-Default Data**

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Project Characteristics - Consistent with DSEIR's model.

Land Use - See SWAPE comment regarding Hotel land use

Construction Phase - See SWAPE comment on "Unsubstantiated Changes to Individual Construction Phase Lengths"

Off-road Equipment - Consistent with DSEIR's model.

Trips and VMT - Consistent with DSEIR's model.

Grading - Consistent with DSEIR's model.

Architectural Coating - See SWAPE comment on "Unsubstantiated Reductions to Architectural and Area Coating Emission Factors"

Vehicle Trips - Consistent with DSEIR's model.

Road Dust - Consistent with DSEIR's model

Woodstoves - Consistent with DSEIR's model.

Area Coating - See SWAPE comment on "Unsubstantiated Reductions to Architectural and Area Coating Emission Factors"

Energy Use - Electricity values consistent with the DSEIR's model. See SWAP comment regarding natural gas energy values.

Water And Wastewater - Consistent with DSEIR's model.

Solid Waste - Consistent with DSEIR's model.

Construction Off-road Equipment Mitigation - See SWAPE comment on "Incorrect Application of Construction-related Mitigation Measures"

Energy Mitigation - See SWAPE comment on "Incorrect Application of Operational Mitigation Measures"

Vehicle Emission Factors - The DSEIR fails to provide a table of the EMFAC2014 input parameters, so we can't include them.

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	110.00	31.00
tblConstructionPhase	NumDays	1,550.00	441.00

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tblConstructionPhase	NumDays	155.00	44.00
tblConstructionPhase	NumDays	110.00	31.00
tblEnergyUse	LightingElect	4.50	0.00
tblEnergyUse	LightingElect	6.22	0.00
tblEnergyUse	NT24E	3.67	0.00
tblEnergyUse	NT24E	3.16	0.00
tblEnergyUse	T24E	4.78	28.06
tblEnergyUse	T24E	3.18	0.00
tblFireplaces	NumberGas	385.00	0.00
tblFireplaces	NumberNoFireplace	70.00	100.00
tblFireplaces	NumberWood	245.00	0.00
tblGrading	MaterialExported	0.00	300,000.00
tblLandUse	LandUseSquareFeet	435,600.00	486,100.00
tblLandUse	LotAcreage	10.00	4.32
tblLandUse	LotAcreage	43.75	27.40
tblLandUse	LotAcreage	2.90	1.52
tblLandUse	Population	2,002.00	2,036.00
tblRoadDust	RoadPercentPave	100	98.7
tblSolidWaste	SolidWasteGenerationRate	0.85	0.00
tblSolidWaste	SolidWasteGenerationRate	322.00	3,852.00
tblSolidWaste	SolidWasteGenerationRate	164.25	947.00
tblSolidWaste	SolidWasteGenerationRate	1,159.95	0.00
tblSolidWaste	SolidWasteGenerationRate	132.72	0.00
tblTripsAndVMT	HaulingTripNumber	0.00	5,900.00
tblTripsAndVMT	VendorTripNumber	0.00	10.00
tblVehicleTrips	CC_TL	7.30	7.60
tblVehicleTrips	CC_TL	7.30	7.60

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tbiVehicleTrips	CC_TL	7.30	5.20
tbiVehicleTrips	CC_TTP	61.60	100.00
tbiVehicleTrips	CC_TTP	48.00	100.00
tbiVehicleTrips	CC_TTP	64.40	100.00
tbiVehicleTrips	CNW_TTP	19.00	0.00
tbiVehicleTrips	CNW_TTP	19.00	0.00
tbiVehicleTrips	CNW_TTP	19.00	0.00
tbiVehicleTrips	CW_TTP	19.40	0.00
tbiVehicleTrips	CW_TTP	33.00	0.00
tbiVehicleTrips	CW_TTP	16.60	0.00
tbiVehicleTrips	DV_TP	11.00	0.00
tbiVehicleTrips	DV_TP	38.00	0.00
tbiVehicleTrips	DV_TP	39.00	0.00
tbiVehicleTrips	DV_TP	40.00	0.00
tbiVehicleTrips	HO_TTP	39.60	0.00
tbiVehicleTrips	HS_TTP	18.80	0.00
tbiVehicleTrips	HW_TL	10.80	4.40
tbiVehicleTrips	HW_TTP	41.60	100.00
tbiVehicleTrips	PB_TP	3.00	0.00
tbiVehicleTrips	PB_TP	4.00	0.00
tbiVehicleTrips	PB_TP	9.00	0.00
tbiVehicleTrips	PB_TP	15.00	0.00
tbiVehicleTrips	PR_TP	86.00	100.00
tbiVehicleTrips	PR_TP	58.00	100.00
tbiVehicleTrips	PR_TP	52.00	100.00
tbiVehicleTrips	PR_TP	45.00	100.00
tbiVehicleTrips	ST_TR	22.75	0.00

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tbiVehicleTrips	ST_TR	5.67	8.14
tbiVehicleTrips	ST_TR	9.10	2.26
tbiVehicleTrips	ST_TR	42.04	45.97
tbiVehicleTrips	SU_TR	16.74	0.00
tbiVehicleTrips	SU_TR	4.84	8.14
tbiVehicleTrips	SU_TR	13.60	2.26
tbiVehicleTrips	SU_TR	20.43	45.97
tbiVehicleTrips	WD_TR	1.89	0.00
tbiVehicleTrips	WD_TR	5.81	8.00
tbiVehicleTrips	WD_TR	8.17	10.00
tbiVehicleTrips	WD_TR	33.82	1.77
tbiVehicleTrips	WD_TR	44.32	79.75
tbiWater	IndoorWaterUseRate	45,607,817.94	35,770,000.00
tbiWater	IndoorWaterUseRate	7,610,031.00	10,950,000.00
tbiWater	IndoorWaterUseRate	12,035,629.81	5,475,000.00
tbiWater	IndoorWaterUseRate	9,362,766.72	3,759,500.00
tbiWater	OutdoorWaterUseRate	11,843,324.62	0.00
tbiWater	OutdoorWaterUseRate	28,752,754.79	15,330,000.00
tbiWater	OutdoorWaterUseRate	845,599.00	2,190,000.00
tbiWater	OutdoorWaterUseRate	7,376,876.34	3,650,000.00
tbiWater	OutdoorWaterUseRate	5,738,469.92	3,195,575.00
tbiWoodstoves	NumberCatalytic	35.00	0.00
tbiWoodstoves	NumberNoncatalytic	35.00	0.00

2.0 Emissions Summary

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**2.1 Overall Construction**

**Unmitigated Construction**

Year	tons/yr										MT/yr					
	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
2021	0.5801	8.7542	4.5780	0.0263	1.0943	0.1111	1.2054	0.3223	0.1036	0.4259	0.0000	2.536 038 0	2.536 038	0.2522	0.0000	2,542.342 9
2022	1.0667	8.6419	8.4439	0.0353	2.0359	0.1282	2.1641	0.5507	0.1206	0.6713	0.0000	3.303 043 0	3.303 043	0.2285	0.0000	3,308.754 2
2023	18.9884	3.6858	3.8994	0.0174	0.9522	0.0558	1.0080	0.2576	0.0523	0.3099	0.0000	1.639 934 7	1.639 934	0.1210	0.0000	1,642.960 0
Maximum	18.9884	8.7542	8.4439	0.0353	2.0359	0.1282	2.1641	0.5507	0.1206	0.6713	0.0000	3,303.043 0	3,303.043	0.2522	0.0000	3,308.754 2

**Mitigated Construction**

Year	tons/yr										MT/yr					
	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
2021	0.5801	8.7542	4.5780	0.0263	1.0943	0.1111	1.2054	0.3223	0.1036	0.4259	0.0000	2.536.037 7	2,536.037	0.2522	0.0000	2,542.342 6
2022	1.0667	8.6419	8.4439	0.0353	2.0359	0.1282	2.1641	0.5507	0.1206	0.6713	0.0000	3.303.042 7	3,303.042	0.2285	0.0000	3,308.753 9
2023	18.9884	3.6858	3.8994	0.0174	0.9522	0.0558	1.0080	0.2576	0.0523	0.3099	0.0000	1.639.934 5	1,639.934	0.1210	0.0000	1,642.959 8
Maximum	18.9884	8.7542	8.4439	0.0353	2.0359	0.1282	2.1641	0.5507	0.1206	0.6713	0.0000	3,303.042 7	3,303.042	0.2522	0.0000	3,308.753 9

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ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
<b>Percent Reduction</b>															
Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)			Maximum Mitigated ROG + NOX (tons/quarter)									
1	7-1-2021	9-30-2021	6.6309			6.6309									
2	10-1-2021	12-31-2021	2.6428			2.6428									
3	1-1-2022	3-31-2022	2.4072			2.4072									
4	4-1-2022	6-30-2022	2.4016			2.4016									
5	7-1-2022	9-30-2022	2.4280			2.4280									
6	10-1-2022	12-31-2022	2.4607			2.4607									
7	1-1-2023	3-31-2023	2.0121			2.0121									
8	4-1-2023	6-30-2023	1.8427			1.8427									
9	7-1-2023	9-30-2023	18.6413			18.6413									
		Highest	18.6413			18.6413									

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**2.2 Overall Operational  
Unmitigated Operational**

Category	tons/yr										MT/yr					
	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio-CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Area	7.2178	0.0599	5.2015	2.7000e-004		0.0288	0.0288		0.0288	0.0288	0.0000	8.5021	8.5021	8.1800e-003	0.0000	8.7066
Energy	0.2088	1.8686	1.3774	0.0114		0.1443	0.1443		0.1443	0.1443	0.0000	7.7200987	7.7200987	0.2672	0.0850	7.7520980
Mobile	3.7934	14.8798	40.3336	0.1402	179.5718	0.1117	179.6834	20.0445	0.1039	20.1484	0.0000	12.967334	12.967334	0.6760	0.0000	12.9842327
Waste						0.0000	0.0000		0.0000	0.0000	974.1536	974.1536	57.5708	0.0000	0.0000	2,413.4244
Water						0.0000	0.0000		0.0000	0.0000	17.7518	326.5751	344.3269	1.8364	0.0458	403.8773
<b>Total</b>	<b>11.2200</b>	<b>16.8084</b>	<b>46.9125</b>	<b>0.1618</b>	<b>179.5718</b>	<b>0.2547</b>	<b>179.8666</b>	<b>20.0445</b>	<b>0.2770</b>	<b>20.3216</b>	<b>991.9064</b>	<b>21,022.6093</b>	<b>22,014.4147</b>	<b>60.3586</b>	<b>0.1307</b>	<b>23,662.3389</b>

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**2.2 Overall Operational Mitigated Operational**

Category	tons/yr										MT/yr						
	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Area	7.2178	0.0599	5.2015	2.7000e-004		0.0288	0.0288		0.0288	0.0288	0.0000	8.5021	8.5021	8.1800e-003	0.0000	0.0000	8.7066
Energy	0.2088	1.8686	1.3774	0.0114		0.1443	0.1443		0.1443	0.1443	0.0000	7.720.0987	7.720.0987	0.2672	0.0850	0.0000	7.752.0980
Mobile	3.7934	14.8798	40.3336	0.1402	179.5718	0.1117	179.6834	20.0445	0.1039	20.1484	0.0000	12.987.3334	12.987.3334	0.6760	0.0000	0.0000	12.984.2327
Waste						0.0000	0.0000		0.0000	0.0000	974.1536	974.1536	974.1536	57.5708	0.0000	0.0000	2,413.4244
Water						0.0000	0.0000		0.0000	0.0000	17.7518	326.5751	344.3269	1.8364	0.0458	0.0000	403.8773
<b>Total</b>	<b>11.2200</b>	<b>16.8084</b>	<b>46.9126</b>	<b>0.1518</b>	<b>179.5718</b>	<b>0.2847</b>	<b>179.9565</b>	<b>20.0445</b>	<b>0.2770</b>	<b>20.3216</b>	<b>991.9064</b>	<b>21,022.6093</b>	<b>22,014.4147</b>	<b>60.3686</b>	<b>0.1307</b>	<b>0.0000</b>	<b>23,862.3389</b>

Percent Reduction	Construction Phase										Construction Phase					
	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

**3.0 Construction Detail**

**Construction Phase**

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Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Grading	Grading	7/1/2021	8/31/2021	5	44	
2	Underground Utilities	Trenching	9/1/2021	9/23/2021	5	17	
3	Building Construction	Building Construction	9/24/2021	6/2/2023	5	441	
4	Paving	Paving	6/3/2023	7/17/2023	5	31	
5	Architectural Coating	Architectural Coating	7/18/2023	8/29/2023	5	31	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 110

Acres of Paving: 29.15

Residential Indoor: 1,417,500; Residential Outdoor: 472,500; Non-Residential Indoor: 918,750; Non-Residential Outdoor: 306,250; Striped Parking Area: 76,186 (Architectural Coating – sqft)

OffRoad\_Equipment

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Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Grading	Excavators	2	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Off-Highway Trucks	2	8.00	402	0.38
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Underground Utilities	Excavators	1	8.00	158	0.38
Underground Utilities	Skid Steer Loaders	1	8.00	65	0.37
Underground Utilities	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

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Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Grading	10	25.00	0.00	37,500.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Underground Utilities	4	10.00	10.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	1,549.00	488.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	5,900.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	310.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Grading - 2021

Unmitigated Construction On-Site

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio-CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
tons/yr																
Fugitive Dust					0.2119	0.0000	0.2119	0.0823	0.0000	0.0823	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.1189	1.2524	0.8379	1.9500e-003	0.0522	0.0522	0.0522	0.0480	0.0480	0.0480	0.0000	170.9227	170.9227	0.0553	0.0000	172.3046
<b>Total</b>	<b>0.1189</b>	<b>1.2524</b>	<b>0.8379</b>	<b>1.9500e-003</b>	<b>0.2119</b>	<b>0.0522</b>	<b>0.2641</b>	<b>0.0823</b>	<b>0.0480</b>	<b>0.1303</b>	<b>0.0000</b>	<b>170.9227</b>	<b>170.9227</b>	<b>0.0553</b>	<b>0.0000</b>	<b>172.3046</b>
MT/yr																

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3.2 Grading - 2021

Unmitigated Construction Off-Site

Category	tons/yr											MT/yr				
	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Hauling	0.1408	4.8969	1.2079	0.0144	0.3208	0.0148	0.3356	0.0881	0.0142	0.1023	0.0000	1,428.039 <sup>7</sup>	1,428.039 <sup>7</sup>	0.1288	0.0000	1,431.261 <sup>8</sup>
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.9100e-003	1.3800e-003	0.0137	4.0000e-005	4.4100e-003	3.0000e-005	4.4400e-003	1.1700e-003	3.0000e-005	1.2000e-003	0.0000	3.8529	3.8529	1.1000e-004	0.0000	3.8556
<b>Total</b>	<b>0.1427</b>	<b>4.8982</b>	<b>1.2216</b>	<b>0.0144</b>	<b>0.3263</b>	<b>0.0148</b>	<b>0.3401</b>	<b>0.0893</b>	<b>0.0142</b>	<b>0.1036</b>	<b>0.0000</b>	<b>1,431.892<sup>6</sup></b>	<b>1,431.892<sup>6</sup></b>	<b>0.1290</b>	<b>0.0000</b>	<b>1,436.117<sup>4</sup></b>

Mitigated Construction On-Site

Category	tons/yr											MT/yr				
	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Fugitive Dust					0.2119	0.0000	0.2119	0.0823	0.0000	0.0823	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.1189	1.2524	0.8379	1.9500e-003	0.0522	0.0522	0.0522	0.0480	0.0480	0.0480	0.0000	170.9224	170.9224	0.0553	0.0000	172.3044
<b>Total</b>	<b>0.1189</b>	<b>1.2524</b>	<b>0.8379</b>	<b>1.9500e-003</b>	<b>0.2119</b>	<b>0.0522</b>	<b>0.2641</b>	<b>0.0823</b>	<b>0.0480</b>	<b>0.1303</b>	<b>0.0000</b>	<b>170.9224</b>	<b>170.9224</b>	<b>0.0553</b>	<b>0.0000</b>	<b>172.3044</b>

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3.2 Grading - 2021

Mitigated Construction Off-Site

Category	tons/yr										MT/yr					
	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Hauling	0.1408	4.8969	1.2079	0.0144	0.3208	0.0148	0.3356	0.0881	0.0142	0.1023	0.0000	1.428.039 <sup>7</sup>	1.428.039 <sup>7</sup>	0.1289	0.0000	1,431.261 <sup>8</sup>
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.9100e-003	1.3600e-003	0.0137	4.0000e-005	4.4100e-003	3.0000e-005	4.4400e-003	1.1700e-003	3.0000e-005	1.2000e-003	0.0000	3.8529	3.8529	1.1000e-004	0.0000	3.8556
<b>Total</b>	<b>0.1427</b>	<b>4.8982</b>	<b>1.2216</b>	<b>0.0144</b>	<b>0.3253</b>	<b>0.0148</b>	<b>0.3401</b>	<b>0.0893</b>	<b>0.0142</b>	<b>0.1035</b>	<b>0.0000</b>	<b>1,431.892<sup>6</sup></b>	<b>1,431.892<sup>6</sup></b>	<b>0.1290</b>	<b>0.0000</b>	<b>1,435.117<sup>4</sup></b>

3.3 Underground Utilities - 2021

Unmitigated Construction On-Site

Category	tons/yr										MT/yr					
	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Off-Road	5.7700e-003	0.0591	0.0781	1.1000e-004	3.1300e-003	3.1300e-003	3.1300e-003	2.8800e-003	2.8800e-003	2.8800e-003	0.0000	10.0413	10.0413	3.2500e-003	0.0000	10.1225
<b>Total</b>	<b>5.7700e-003</b>	<b>0.0591</b>	<b>0.0781</b>	<b>1.1000e-004</b>	<b>3.1300e-003</b>	<b>3.1300e-003</b>	<b>3.1300e-003</b>	<b>2.8800e-003</b>	<b>2.8800e-003</b>	<b>2.8800e-003</b>	<b>0.0000</b>	<b>10.0413</b>	<b>10.0413</b>	<b>3.2500e-003</b>	<b>0.0000</b>	<b>10.1225</b>

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**3.3 Underground Utilities - 2021**  
**Unmitigated Construction Off-Site**

Category	tons/yr										MT/yr					
	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	2.6000e-004	8.7400e-003	2.3300e-003	2.0000e-005	5.6000e-004	2.0000e-005	5.8000e-004	1.6000e-004	2.0000e-005	1.8000e-004	0.0000	2.2222	2.2222	1.6000e-004	0.0000	2.2264
Worker	3.0000e-004	2.1000e-004	2.1200e-003	1.0000e-005	6.8000e-004	0.0000	6.9000e-004	1.8000e-004	0.0000	1.9000e-004	0.0000	0.5954	0.5954	2.0000e-005	0.0000	0.5959
<b>Total</b>	<b>5.6000e-004</b>	<b>8.9600e-003</b>	<b>4.4600e-003</b>	<b>3.0000e-005</b>	<b>1.2400e-003</b>	<b>2.0000e-005</b>	<b>1.2700e-003</b>	<b>3.4000e-004</b>	<b>2.0000e-005</b>	<b>3.7000e-004</b>	<b>0.0000</b>	<b>2.8177</b>	<b>2.8177</b>	<b>1.8000e-004</b>	<b>0.0000</b>	<b>2.8222</b>

**Mitigated Construction On-Site**

Category	tons/yr										MT/yr					
	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Off-Road	5.7700e-003	0.0591	0.0781	1.1000e-004	3.1300e-003	3.1300e-003	3.1300e-003	2.8800e-003	2.8800e-003	2.8800e-003	0.0000	10.0413	10.0413	3.2500e-003	0.0000	10.1225
<b>Total</b>	<b>5.7700e-003</b>	<b>0.0591</b>	<b>0.0781</b>	<b>1.1000e-004</b>	<b>3.1300e-003</b>	<b>3.1300e-003</b>	<b>3.1300e-003</b>	<b>2.8800e-003</b>	<b>2.8800e-003</b>	<b>2.8800e-003</b>	<b>0.0000</b>	<b>10.0413</b>	<b>10.0413</b>	<b>3.2500e-003</b>	<b>0.0000</b>	<b>10.1225</b>

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**3.3 Underground Utilities - 2021**

**Mitigated Construction Off-Site**

Category	tons/yr											MT/yr				
	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	2.6000e-004	8.7400e-003	2.3300e-003	2.0000e-005	5.6000e-004	2.0000e-005	5.8000e-004	1.6000e-004	2.0000e-005	1.8000e-004	0.0000	2.2222	2.2222	1.6000e-004	0.0000	2.2264
Worker	3.0000e-004	2.1000e-004	2.1200e-003	1.0000e-005	6.8000e-004	0.0000	6.9000e-004	1.8000e-004	0.0000	1.9000e-004	0.0000	0.5954	0.5954	2.0000e-005	0.0000	0.5959
<b>Total</b>	<b>5.6000e-004</b>	<b>8.9500e-003</b>	<b>4.4500e-003</b>	<b>3.0000e-005</b>	<b>1.2400e-003</b>	<b>2.0000e-005</b>	<b>1.2700e-003</b>	<b>3.4000e-004</b>	<b>2.0000e-005</b>	<b>3.7000e-004</b>	<b>0.0000</b>	<b>2.8177</b>	<b>2.8177</b>	<b>1.8000e-004</b>	<b>0.0000</b>	<b>2.8222</b>

**3.4 Building Construction - 2021**

**Unmitigated Construction On-Site**

Category	tons/yr											MT/yr				
	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Off-Road	0.0675	0.6188	0.5884	9.6000e-004		0.0340	0.0340		0.0320	0.0320	0.0000	82.2312	82.2312	0.0198	0.0000	82.7272
<b>Total</b>	<b>0.0675</b>	<b>0.6188</b>	<b>0.5884</b>	<b>9.6000e-004</b>		<b>0.0340</b>	<b>0.0340</b>		<b>0.0320</b>	<b>0.0320</b>	<b>0.0000</b>	<b>82.2312</b>	<b>82.2312</b>	<b>0.0198</b>	<b>0.0000</b>	<b>82.7272</b>

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**3.4 Building Construction - 2021**  
**Unmitigated Construction Off-Site**

Category	tons/yr										MT/yr					
	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0536	1.7803	0.4748	4.6400e-003	0.1150	3.7700e-003	0.1188	0.0332	3.6000e-003	0.0368	0.0000	452.9187	452.9187	0.0336	0.0000	453.7591
Worker	0.1912	0.1364	1.3738	4.2600e-003	0.4410	3.1200e-003	0.4441	0.1172	2.8700e-003	0.1201	0.0000	385.2139	385.2139	0.0110	0.0000	385.4899
<b>Total</b>	<b>0.2447</b>	<b>1.9167</b>	<b>1.8486</b>	<b>8.9000e-003</b>	<b>0.5560</b>	<b>6.8900e-003</b>	<b>0.5628</b>	<b>0.1604</b>	<b>6.4700e-003</b>	<b>0.1669</b>	<b>0.0000</b>	<b>838.1326</b>	<b>838.1326</b>	<b>0.0447</b>	<b>0.0000</b>	<b>839.2490</b>

**Mitigated Construction On-Site**

Category	tons/yr										MT/yr					
	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Off-Road	0.0675	0.6188	0.5884	9.6000e-004		0.0340	0.0340		0.0320	0.0320	0.0000	82.2311	82.2311	0.0198	0.0000	82.7271
<b>Total</b>	<b>0.0675</b>	<b>0.6188</b>	<b>0.5884</b>	<b>9.6000e-004</b>		<b>0.0340</b>	<b>0.0340</b>		<b>0.0320</b>	<b>0.0320</b>	<b>0.0000</b>	<b>82.2311</b>	<b>82.2311</b>	<b>0.0198</b>	<b>0.0000</b>	<b>82.7271</b>

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**3.4 Building Construction - 2021**

**Mitigated Construction Off-Site**

Category	tons/yr										MT/yr					
	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0536	1.7803	0.4748	4.6400e-003	0.1150	3.7700e-003	0.1188	0.0332	3.6000e-003	0.0366	0.0000	452.9187	0.0336	0.0000	0.0000	453.7591
Worker	0.1912	0.1364	1.3738	4.2600e-003	0.4410	3.1200e-003	0.4441	0.1172	2.8700e-003	0.1201	0.0000	385.2139	0.0110	0.0000	0.0000	385.4899
<b>Total</b>	<b>0.2447</b>	<b>1.9167</b>	<b>1.8486</b>	<b>8.9000e-003</b>	<b>0.5560</b>	<b>6.8900e-003</b>	<b>0.5628</b>	<b>0.1604</b>	<b>6.4700e-003</b>	<b>0.1669</b>	<b>0.0000</b>	<b>838.1326</b>	<b>0.0447</b>	<b>0.0000</b>	<b>0.0000</b>	<b>839.2490</b>

**3.4 Building Construction - 2022**

**Unmitigated Construction On-Site**

Category	tons/yr										MT/yr					
	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Off-Road	0.2218	2.0300	2.1272	3.5000e-003	0.1052	0.1052	0.1052	0.0990	0.0990	0.0990	0.0000	301.2428	0.0722	0.0000	0.0000	303.0471
<b>Total</b>	<b>0.2218</b>	<b>2.0300</b>	<b>2.1272</b>	<b>3.5000e-003</b>	<b>0.1052</b>	<b>0.1052</b>	<b>0.1052</b>	<b>0.0990</b>	<b>0.0990</b>	<b>0.0990</b>	<b>0.0000</b>	<b>301.2428</b>	<b>0.0722</b>	<b>0.0000</b>	<b>0.0000</b>	<b>303.0471</b>

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**3.4 Building Construction - 2022**  
**Unmitigated Construction Off-Site**

Category	tons/yr										MT/yr					
	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.1825	6.1566	1.6461	0.0168	0.4211	0.0119	0.4330	0.1216	0.0114	0.1329	0.0000	1,642.868	1,642.868	0.1193	0.0000	1,645.850
Worker	0.6624	0.4553	4.6706	0.0150	1.6148	0.0112	1.6260	0.4291	0.0103	0.4394	0.0000	1,358.931	1,358.931	0.0370	0.0000	1,359.857
<b>Total</b>	<b>0.8449</b>	<b>6.6119</b>	<b>6.3166</b>	<b>0.0318</b>	<b>2.0359</b>	<b>0.0231</b>	<b>2.0590</b>	<b>0.5607</b>	<b>0.0217</b>	<b>0.5723</b>	<b>0.0000</b>	<b>3,001.800</b>	<b>3,001.800</b>	<b>0.1563</b>	<b>0.0000</b>	<b>3,005.707</b>

**Mitigated Construction On-Site**

Category	tons/yr										MT/yr					
	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Off-Road	0.2218	2.0300	2.1272	3.5000e-003	0.1052	0.1052	0.1052	0.0990	0.0990	0.0990	0.0000	301.2425	301.2425	0.0722	0.0000	303.0467
<b>Total</b>	<b>0.2218</b>	<b>2.0300</b>	<b>2.1272</b>	<b>3.5000e-003</b>	<b>0.1052</b>	<b>0.1052</b>	<b>0.1052</b>	<b>0.0990</b>	<b>0.0990</b>	<b>0.0990</b>	<b>0.0000</b>	<b>301.2425</b>	<b>301.2425</b>	<b>0.0722</b>	<b>0.0000</b>	<b>303.0467</b>

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**3.4 Building Construction - 2022**

**Mitigated Construction Off-Site**

Category	tons/yr										MT/yr					
	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.1825	6.1566	1.6461	0.0168	0.4211	0.0119	0.4330	0.1216	0.0114	0.1329	0.0000	1,642.868	8	0.1193	0.0000	1,645.850
Worker	0.6624	0.4553	4.6706	0.0150	1.6148	0.0112	1.6260	0.4291	0.0103	0.4394	0.0000	1,358.931	4	0.0370	0.0000	1,359.857
<b>Total</b>	<b>0.8449</b>	<b>6.6119</b>	<b>6.3166</b>	<b>0.0318</b>	<b>2.0359</b>	<b>0.0231</b>	<b>2.0590</b>	<b>0.5607</b>	<b>0.0217</b>	<b>0.5723</b>	<b>0.0000</b>	<b>3,001.800</b>	<b>2</b>	<b>0.1563</b>	<b>0.0000</b>	<b>3,005.707</b>

**3.4 Building Construction - 2023**

**Unmitigated Construction On-Site**

Category	tons/yr										MT/yr					
	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Off-Road	0.0865	0.7912	0.8934	1.4800e-003		0.0385	0.0385		0.0362	0.0362	0.0000	127.4926		0.0303	0.0000	128.2508
<b>Total</b>	<b>0.0865</b>	<b>0.7912</b>	<b>0.8934</b>	<b>1.4800e-003</b>		<b>0.0385</b>	<b>0.0385</b>		<b>0.0362</b>	<b>0.0362</b>	<b>0.0000</b>	<b>127.4926</b>		<b>0.0303</b>	<b>0.0000</b>	<b>128.2508</b>

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**3.4 Building Construction - 2023**  
**Unmitigated Construction Off-Site**

Category	tons/yr										MT/yr					
	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0596	2.0462	0.6342	6.9200e-003	0.1782	2.4500e-003	0.1806	0.0514	2.3400e-003	0.0538	0.0000	677.5626	677.5626	0.0461	0.0000	678.7144
Worker	0.2656	0.1759	1.8326	6.1100e-003	0.6832	4.6400e-003	0.6878	0.1815	4.2700e-003	0.1858	0.0000	552.9713	552.9713	0.0143	0.0000	553.3295
<b>Total</b>	<b>0.3252</b>	<b>2.2221</b>	<b>2.4668</b>	<b>0.0130</b>	<b>0.8613</b>	<b>7.0900e-003</b>	<b>0.8684</b>	<b>0.2330</b>	<b>6.6100e-003</b>	<b>0.2396</b>	<b>0.0000</b>	<b>1,230.5339</b>	<b>1,230.5339</b>	<b>0.0604</b>	<b>0.0000</b>	<b>1,232.0438</b>

**Mitigated Construction On-Site**

Category	tons/yr										MT/yr					
	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Off-Road	0.0865	0.7912	0.8934	1.4800e-003		0.0385	0.0385		0.0362	0.0362	0.0000	127.4925	127.4925	0.0303	0.0000	128.2507
<b>Total</b>	<b>0.0865</b>	<b>0.7912</b>	<b>0.8934</b>	<b>1.4800e-003</b>		<b>0.0385</b>	<b>0.0385</b>		<b>0.0362</b>	<b>0.0362</b>	<b>0.0000</b>	<b>127.4925</b>	<b>127.4925</b>	<b>0.0303</b>	<b>0.0000</b>	<b>128.2507</b>

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**3.4 Building Construction - 2023**

**Mitigated Construction Off-Site**

Category	tons/yr										MT/yr					
	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0596	2.0462	0.6342	6.9200e-003	0.1782	2.4500e-003	0.1806	0.0514	2.3400e-003	0.0538	0.0000	677.5626	677.5626	0.0461	0.0000	678.7144
Worker	0.2656	0.1759	1.8326	6.1100e-003	0.6632	4.6400e-003	0.6678	0.1815	4.2700e-003	0.1858	0.0000	552.9713	552.9713	0.0143	0.0000	553.3295
<b>Total</b>	<b>0.3252</b>	<b>2.2221</b>	<b>2.4668</b>	<b>0.0130</b>	<b>0.8613</b>	<b>7.0900e-003</b>	<b>0.8684</b>	<b>0.2330</b>	<b>6.6100e-003</b>	<b>0.2396</b>	<b>0.0000</b>	<b>1,230.6339</b>	<b>1,230.6339</b>	<b>0.0604</b>	<b>0.0000</b>	<b>1,232.0438</b>

**3.5 Paving - 2023**

**Unmitigated Construction On-Site**

Category	tons/yr										MT/yr					
	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Off-Road	0.0160	0.1580	0.2261	3.5000e-004	7.9100e-003	7.9100e-003	7.9100e-003	7.2800e-003	7.2800e-003	7.2800e-003	0.0000	31.0416	31.0416	0.0100	0.0000	31.2926
Paving	0.0382				0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>	<b>0.0542</b>	<b>0.1580</b>	<b>0.2261</b>	<b>3.5000e-004</b>	<b>7.9100e-003</b>	<b>7.9100e-003</b>	<b>7.9100e-003</b>	<b>7.2800e-003</b>	<b>7.2800e-003</b>	<b>7.2800e-003</b>	<b>0.0000</b>	<b>31.0416</b>	<b>31.0416</b>	<b>0.0100</b>	<b>0.0000</b>	<b>31.2926</b>

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**3.5 Paving - 2023**

**Unmitigated Construction Off-Site**

Category	tons/yr											MT/yr				
	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Hauling	0.0149	0.4839	0.1767	2.1400e-003	0.0505	9.0000e-004	0.0514	0.0139	8.6000e-004	0.0147	0.0000	214.2124	214.2124	0.0192	0.0000	214.6914
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	7.2000e-004	4.8000e-004	5.0000e-003	2.0000e-005	1.8600e-003	1.0000e-005	1.8800e-003	5.0000e-004	1.0000e-005	5.1000e-004	0.0000	1.5091	1.5091	4.0000e-005	0.0000	1.5101
<b>Total</b>	<b>0.0156</b>	<b>0.4844</b>	<b>0.1817</b>	<b>2.1600e-003</b>	<b>0.0523</b>	<b>9.1000e-004</b>	<b>0.0533</b>	<b>0.0144</b>	<b>8.7000e-004</b>	<b>0.0162</b>	<b>0.0000</b>	<b>216.7216</b>	<b>216.7216</b>	<b>0.0192</b>	<b>0.0000</b>	<b>216.2014</b>

**Mitigated Construction On-Site**

Category	tons/yr											MT/yr				
	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Off-Road	0.0160	0.1580	0.2261	3.5000e-004	7.9100e-003	7.9100e-003	7.9100e-003	7.2800e-003	7.2800e-003	7.2800e-003	0.0000	31.0416	31.0416	0.0100	0.0000	31.2926
Paving	0.0382				0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>	<b>0.0542</b>	<b>0.1580</b>	<b>0.2261</b>	<b>3.5000e-004</b>	<b>7.9100e-003</b>	<b>7.9100e-003</b>	<b>7.9100e-003</b>	<b>7.2800e-003</b>	<b>7.2800e-003</b>	<b>7.2800e-003</b>	<b>0.0000</b>	<b>31.0416</b>	<b>31.0416</b>	<b>0.0100</b>	<b>0.0000</b>	<b>31.2926</b>

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**3.5 Paving - 2023**

**Mitigated Construction Off-Site**

Category	tons/yr											MT/yr				
	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Hauling	0.0149	0.4839	0.1787	2.1400e-003	0.0505	9.0000e-004	0.0514	0.0139	8.6000e-004	0.0147	0.0000	214.2124	214.2124	0.0192	0.0000	214.6914
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	7.2000e-004	4.8000e-004	5.0000e-003	2.0000e-005	1.8600e-003	1.0000e-005	1.8800e-003	5.0000e-004	1.0000e-005	5.1000e-004	0.0000	1.5091	1.5091	4.0000e-005	0.0000	1.5101
<b>Total</b>	<b>0.0166</b>	<b>0.4844</b>	<b>0.1817</b>	<b>2.1600e-003</b>	<b>0.0523</b>	<b>9.1000e-004</b>	<b>0.0533</b>	<b>0.0144</b>	<b>8.7000e-004</b>	<b>0.0152</b>	<b>0.0000</b>	<b>215.7216</b>	<b>215.7216</b>	<b>0.0192</b>	<b>0.0000</b>	<b>216.2014</b>

**3.6 Architectural Coating - 2023**

**Unmitigated Construction On-Site**

Category	tons/yr											MT/yr				
	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Archit. Coating	18.4889					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.3700e-003	0.0202	0.0281	5.0000e-005	1.1000e-003	1.1000e-003	1.1000e-003	1.1000e-003	1.1000e-003	1.1000e-003	0.0000	3.9575	3.9575	2.4000e-004	0.0000	3.9635
<b>Total</b>	<b>18.4919</b>	<b>0.0202</b>	<b>0.0281</b>	<b>5.0000e-005</b>	<b>1.1000e-003</b>	<b>1.1000e-003</b>	<b>1.1000e-003</b>	<b>1.1000e-003</b>	<b>1.1000e-003</b>	<b>1.1000e-003</b>	<b>0.0000</b>	<b>3.9575</b>	<b>3.9575</b>	<b>2.4000e-004</b>	<b>0.0000</b>	<b>3.9836</b>

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**3.6 Architectural Coating - 2023**

**Unmitigated Construction Off-Site**

Category	tons/yr											MT/yr				
	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0150	9.9200e-003	0.1034	3.4000e-004	0.0385	2.6000e-004	0.0388	0.0102	2.4000e-004	0.0105	0.0000	31.1876	31.1876	8.1000e-004	0.0000	31.2078
<b>Total</b>	<b>0.0150</b>	<b>9.9200e-003</b>	<b>0.1034</b>	<b>3.4000e-004</b>	<b>0.0385</b>	<b>2.6000e-004</b>	<b>0.0388</b>	<b>0.0102</b>	<b>2.4000e-004</b>	<b>0.0105</b>	<b>0.0000</b>	<b>31.1876</b>	<b>31.1876</b>	<b>8.1000e-004</b>	<b>0.0000</b>	<b>31.2078</b>

**Mitigated Construction On-Site**

Category	tons/yr											MT/yr				
	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Archit. Coating	18.4889					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.9700e-003	0.0202	0.0281	5.0000e-005	1.1000e-003	1.1000e-003	1.1000e-003	1.1000e-003	1.1000e-003	1.1000e-003	0.0000	3.9575	3.9575	2.4000e-004	0.0000	3.9635
<b>Total</b>	<b>18.4919</b>	<b>0.0202</b>	<b>0.0281</b>	<b>5.0000e-005</b>	<b>1.1000e-003</b>	<b>1.1000e-003</b>	<b>1.1000e-003</b>	<b>1.1000e-003</b>	<b>1.1000e-003</b>	<b>1.1000e-003</b>	<b>0.0000</b>	<b>3.9575</b>	<b>3.9575</b>	<b>2.4000e-004</b>	<b>0.0000</b>	<b>3.9635</b>

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3.6 Architectural Coating - 2023

Mitigated Construction Off-Site

Category	tons/yr										MT/yr					
	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0150	9.9200e-003	0.1034	3.4000e-004	0.0385	2.6000e-004	0.0388	0.0102	2.4000e-004	0.0105	0.0000	31.1876	31.1876	8.1000e-004	0.0000	31.2078
<b>Total</b>	<b>0.0150</b>	<b>9.9200e-003</b>	<b>0.1034</b>	<b>3.4000e-004</b>	<b>0.0385</b>	<b>2.6000e-004</b>	<b>0.0388</b>	<b>0.0102</b>	<b>2.4000e-004</b>	<b>0.0105</b>	<b>0.0000</b>	<b>31.1876</b>	<b>31.1876</b>	<b>8.1000e-004</b>	<b>0.0000</b>	<b>31.2078</b>

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

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Category	tons/yr											MT/yr				
	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Mitigated	3.7934	14.8798	40.3336	0.1402	179.5718	0.1117	179.6834	20.0445	0.1039	20.1484	0.0000	12.967.33	12.967.33	0.6760	0.0000	12.984.23
Unmitigated	3.7934	14.8798	40.3336	0.1402	179.5718	0.1117	179.6834	20.0445	0.1039	20.1484	0.0000	12.967.33	12.967.33	0.6760	0.0000	12.984.23

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated Annual VMT		Mitigated Annual VMT	
	Weekday	Saturday	Sunday	Unmitigated Annual VMT	Mitigated Annual VMT	Unmitigated Annual VMT	Mitigated Annual VMT
City Park	0.00	0.00	0.00				
Condo/Townhouse	5,600.00	5,698.00	5,698.00	9,013,805	9,013,805	9,013,805	9,013,805
Hotel	3,000.00	2,457.00	1,785.00	7,604,438	7,604,438	7,604,438	7,604,438
Other Asphalt Surfaces	0.00	0.00	0.00				
Parking Lot	0.00	0.00	0.00				
Recreational Swimming Pool	360.20	459.91	459.91	1,075,258	1,075,258	1,075,258	1,075,258
Strip Mall	10,080.40	5,810.61	5,810.61	16,771,078	16,771,078	16,771,078	16,771,078
<b>Total</b>	<b>19,040.60</b>	<b>14,425.52</b>	<b>13,753.52</b>	<b>34,464,579</b>	<b>34,464,579</b>	<b>34,464,579</b>	<b>34,464,579</b>

4.3 Trip Type Information

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Land Use	Miles				Trip %				Trip Purpose %			
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
City Park	9.50	7.30	7.30	33.00	48.00	19.00	66	28	6			
Condo/Townhouse	4.40	7.30	7.50	100.00	0.00	0.00	100	0	0			
Hotel	9.50	7.60	7.30	0.00	100.00	0.00	100	0	0			
Other Asphalt Surfaces	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0			
Parking Lot	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0			
Recreational Swimming Pool	9.50	7.60	7.30	0.00	100.00	0.00	100	0	0			
Strip Mall	9.50	5.20	7.30	0.00	100.00	0.00	100	0	0			

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
City Park	0.606234	0.039465	0.179154	0.102641	0.014368	0.005395	0.016820	0.024508	0.001929	0.001857	0.005869	0.000761	0.000998
Condo/Townhouse	0.606234	0.039465	0.179154	0.102641	0.014368	0.005395	0.016820	0.024508	0.001929	0.001857	0.005869	0.000761	0.000998
Hotel	0.606234	0.039465	0.179154	0.102641	0.014368	0.005395	0.016820	0.024508	0.001929	0.001857	0.005869	0.000761	0.000998
Other Asphalt Surfaces	0.606234	0.039465	0.179154	0.102641	0.014368	0.005395	0.016820	0.024508	0.001929	0.001857	0.005869	0.000761	0.000998
Parking Lot	0.606234	0.039465	0.179154	0.102641	0.014368	0.005395	0.016820	0.024508	0.001929	0.001857	0.005869	0.000761	0.000998
Recreational Swimming Pool	0.606234	0.039465	0.179154	0.102641	0.014368	0.005395	0.016820	0.024508	0.001929	0.001857	0.005869	0.000761	0.000998
Strip Mall	0.606234	0.039465	0.179154	0.102641	0.014368	0.005395	0.016820	0.024508	0.001929	0.001857	0.005869	0.000761	0.000998

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Ocean KAMP Project - San Diego County, Annual

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio-CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
	tons/yr											MT/yr				
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	5,653.6640	5,653.6640	0.2276	0.0471	5,673.3835
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	5,653.6640	5,653.6640	0.2276	0.0471	5,673.3835
Natural Gas Mitigated	0.2088	1.8686	1.3774	0.0114	0.1443	0.1443	0.1443	0.1443	0.1443	0.1443	0.0000	2,066.4347	2,066.4347	0.0396	0.0379	2,078.7145
Natural Gas Unmitigated	0.2088	1.8686	1.3774	0.0114	0.1443	0.1443	0.1443	0.1443	0.1443	0.1443	0.0000	2,066.4347	2,066.4347	0.0396	0.0379	2,078.7145

Ocean KAMP Project - San Diego County, Annual

5.2 Energy by Land Use - NaturalGas

Unmitigated

Land Use	NaturalGas Use KBTU/yr	tons/yr										MT/yr						
		ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio-CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e	
City Park	0	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Condo/Townhouse	1.0068e+007	0.0543	0.4639	0.1974	2.9600e-003	0.0375	0.0375	0.0375	0.0375	0.0375	0.0375	0.0375	0.0375	0.0103	9.8500e-003	540.4593		
Hotel	2.83737e+007	0.1530	1.3909	1.1663	8.3500e-003	0.1057	0.1057	0.1057	0.1057	0.1057	0.1057	0.1057	0.1057	0.0290	0.0278	1.523124		
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Recreational Swimming Pool	0	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Strip Mall	281872	1.5200e-003	0.0138	0.0116	8.0000e-005	1.0500e-003	1.0500e-003	1.0500e-003	1.0500e-003	1.0500e-003	1.0500e-003	1.0500e-003	1.0500e-003	2.9000e-004	2.8000e-004	15.1312		
<b>Total</b>		<b>0.2088</b>	<b>1.8686</b>	<b>1.3774</b>	<b>0.0114</b>	<b>0.1443</b>	<b>0.1443</b>	<b>0.1443</b>	<b>0.1443</b>	<b>0.1443</b>	<b>0.1443</b>	<b>0.1443</b>	<b>0.1443</b>	<b>2.0664347</b>	<b>0.0379</b>	<b>2.0787146</b>		

Ocean KAMP Project - San Diego County, Annual

5.2 Energy by Land Use - NaturalGas

Mitigated

Land Use	NaturalGas Use kBTU/yr	ROG	NOx	CO	SO2	toms/yr			MT/yr					CO2e			
						Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio-CO2	NBio-CO2		Total CO2	CH4	N2O
City Park	0	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Condo/Townhouse	1.0066e+007	0.0543	0.4639	0.1974	2.9600e-003	0.0375	0.0375	0.0375	0.0375	0.0375	0.0375	0.0000	537.2666	537.2666	0.0103	9.8500e-003	540.4593
Hotel	2.83737e+007	0.1530	1.3909	1.1683	8.3500e-003	0.1057	0.1057	0.1057	0.1057	0.1057	0.1057	0.0000	1,514.1264	1,514.1264	0.0290	0.0278	1,523.1241
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Recreational Swimming Pool	0	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Strip Mall	281872	1.5200e-003	0.0138	0.0116	8.0000e-005	1.0500e-003	1.0500e-003	1.0500e-003	1.0500e-003	1.0500e-003	1.0500e-003	0.0000	15.0418	15.0418	2.9000e-004	2.8000e-004	15.1312
<b>Total</b>		<b>0.2088</b>	<b>1.8686</b>	<b>1.3774</b>	<b>0.0114</b>	<b>0.1443</b>	<b>0.1443</b>	<b>0.1443</b>	<b>0.1443</b>	<b>0.1443</b>	<b>0.1443</b>	<b>0.0000</b>	<b>2,066.4347</b>	<b>2,066.4347</b>	<b>0.0396</b>	<b>0.0379</b>	<b>2,078.7146</b>

Ocean KAMP Project - San Diego County, Annual

**5.3 Energy by Land Use - Electricity**

**Unmitigated**

Land Use	Electricity Use	Total CO2	CH4	N2O	CO2e
	kWh/yr	MT/yr			
City Park	0	0.0000	0.0000	0.0000	0.0000
Condo/Townhouse	3.51633e+006	1,149,167.8	0.0463	9.5700e-003	1,153,176.0
Hotel	1.364e+007	4,457,660.5	0.1794	0.0371	4,473,208.4
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	143312	46,8358	1.8900e-003	3.9000e-004	46,998.1
Recreational Swimming Pool	0	0.0000	0.0000	0.0000	0.0000
Strip Mall	0	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>5,663,664.0</b>	<b>0.2276</b>	<b>0.0471</b>	<b>5,673,383.5</b>

**5.3 Energy by Land Use - Electricity**

**Mitigated**

Land Use	Electricity Use kWh/yr	Total CO2	CH4	N2O	CO2e
		MT/yr			
City Park	0	0.0000	0.0000	0.0000	0.0000
Condo/Townhouse	3.51633e+006	1,149,167.8	0.0463	9.5700e-003	1,153,176.0
Hotel	1,364e+007	4,457,660.5	0.1794	0.0371	4,473,208.4
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	143312	46,8358	1.8900e-003	3.9000e-004	46,9991
Recreational Swimming Pool	0	0.0000	0.0000	0.0000	0.0000
Strip Mall	0	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>5,653,664.0</b>	<b>0.2276</b>	<b>0.0471</b>	<b>5,673,363.6</b>

**6.0 Area Detail**

**6.1 Mitigation Measures Area**

Ocean KAMP Project - San Diego County, Annual

Category	tons/yr											MT/yr				
	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Mitigated	7.2178	0.0599	5.2015	2.7000e-004	0.0288	0.0288	0.0288	0.0288	0.0288	0.0288	0.0000	8.5021	8.5021	8.1800e-003	0.0000	8.7066
Unmitigated	7.2178	0.0599	5.2015	2.7000e-004	0.0288	0.0288	0.0288	0.0288	0.0288	0.0288	0.0000	8.5021	8.5021	8.1800e-003	0.0000	8.7066

**6.2 Area by SubCategory**  
**Unmitigated**

SubCategory	tons/yr											MT/yr				
	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Architectural Coating	1.8489				0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	5.2121				0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.1568	0.0599	5.2015	2.7000e-004	0.0288	0.0288	0.0288	0.0288	0.0288	0.0288	0.0000	8.5021	8.5021	8.1800e-003	0.0000	8.7066
<b>Total</b>	<b>7.2178</b>	<b>0.0599</b>	<b>5.2015</b>	<b>2.7000e-004</b>	<b>0.0288</b>	<b>0.0288</b>	<b>0.0288</b>	<b>0.0288</b>	<b>0.0288</b>	<b>0.0288</b>	<b>0.0000</b>	<b>8.5021</b>	<b>8.5021</b>	<b>8.1800e-003</b>	<b>0.0000</b>	<b>8.7066</b>

Ocean KAMP Project - San Diego County, Annual

**6.2 Area by SubCategory**

**Mitigated**

SubCategory	tons/yr										MT/yr					
	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Architectural Coating	1.8489					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	5.2121					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.1568	0.0599	5.2015	2.7000e-004		0.0288	0.0288		0.0288	0.0288	0.0000	8.5021	8.5021	8.1800e-003	0.0000	8.7066
<b>Total</b>	<b>7.2178</b>	<b>0.0599</b>	<b>5.2015</b>	<b>2.7000e-004</b>		<b>0.0288</b>	<b>0.0288</b>		<b>0.0288</b>	<b>0.0288</b>	<b>0.0000</b>	<b>8.5021</b>	<b>8.5021</b>	<b>8.1800e-003</b>	<b>0.0000</b>	<b>8.7066</b>

**7.0 Water Detail**

**7.1 Mitigation Measures Water**

Ocean KAMP Project - San Diego County, Annual

Category	MT/yr			
	Total CO2	CH4	N2O	CO2e
Mitigated	344.3269	1.8364	0.0458	403.8773
Unmitigated	344.3269	1.8364	0.0458	403.8773

Ocean KAMP Project - San Diego County, Annual

7.2 Water by Land Use

Unmitigated

Land Use	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
	Mgal	MT/yr			
City Park	0 / 0	0.0000	0.0000	0.0000	0.0000
Condo/Townhouse	35.77 / 15.33	219.2239	1.1739	0.0293	257.2895
Hotel	10.95 / 2.19	58.0219	0.3590	8.8800e-003	69.6429
Other Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Recreational Swimming Pool	5.475 / 3.65	38.2877	0.1799	4.5200e-003	44.1306
Strip Mall	3.7595 / 3.19557	28.7934	0.1236	3.1200e-003	32.8143
<b>Total</b>		<b>344.3269</b>	<b>1.8364</b>	<b>0.0468</b>	<b>403.8773</b>

Ocean KAMP Project - San Diego County, Annual

**7.2 Water by Land Use**

**Mitigated**

Land Use	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
	Mgal	MT/yr			
City Park	0 / 0	0.0000	0.0000	0.0000	0.0000
Condominiums	35.77 / 15.33	219.2239	1.1739	0.0293	257.2895
Hotel	10.95 / 2.19	58.0219	0.3590	8.8600e-003	69.6429
Other Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Recreational Swimming Pool	5.475 / 3.65	36.2877	0.1799	4.5200e-003	44.1306
Strip Mall	3.7595 / 3.19557	28.7934	0.1236	3.1200e-003	32.8143
<b>Total</b>		<b>344.3269</b>	<b>1.8364</b>	<b>0.0468</b>	<b>403.8773</b>

**8.0 Waste Detail**

**8.1 Mitigation Measures Waste**

Ocean KAMP Project - San Diego County, Annual

**Category/Year**

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	974,1536	57,5708	0,0000	2,413,4244
Unmitigated	974,1536	57,5708	0,0000	2,413,4244

Ocean KAMP Project - San Diego County, Annual

**8.2 Waste by Land Use**

**Unmitigated**

Land Use	Waste Disposed tons	MT/yr				CO2e
		Total CO2	CH4	N2O	CO2e	
City Park	0	0.0000	0.0000	0.0000	0.0000	
Condo/Townhouse	3852	781.9212	46.2102	0.0000	1,937.1767	
Hotel	947	192.2324	11.3606	0.0000	476.2477	
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000	
Parking Lot	0	0.0000	0.0000	0.0000	0.0000	
Recreational Swimming Pool	0	0.0000	0.0000	0.0000	0.0000	
Strip Mall	0	0.0000	0.0000	0.0000	0.0000	
<b>Total</b>		<b>974.1536</b>	<b>57.5708</b>	<b>0.0000</b>	<b>2,413.4244</b>	

Ocean KAMP Project - San Diego County, Annual

**8.2 Waste by Land Use**

**Mitigated**

Land Use	Waste Disposed tons	Total CO2				CO2e
		CH4	N2O	MT/yr		
City Park	0	0.0000	0.0000	0.0000	0.0000	
Condo/Townhouse	3852	781.9212	46.2102	0.0000	1,937.1767	
Hotel	947	192.2324	11.3606	0.0000	476.2477	
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000	
Parking Lot	0	0.0000	0.0000	0.0000	0.0000	
Recreational Swimming Pool	0	0.0000	0.0000	0.0000	0.0000	
Strip Mall	0	0.0000	0.0000	0.0000	0.0000	
<b>Total</b>		<b>974.1636</b>	<b>57.5708</b>	<b>0.0000</b>	<b>2,413.4244</b>	

**9.0 Operational Offroad**

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
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**10.0 Stationary Equipment**

**Fire Pumps and Emergency Generators**

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
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Ocean KAMP Project - San Diego County, Annual

**Boilers**

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type
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**User Defined Equipment**

Equipment Type	Number
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**11.0 Vegetation**

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Ocean KAMP Project - San Diego County, Summer

**Ocean KAMP Project**  
San Diego County, Summer

**1.0 Project Characteristics**

**1.1 Land Usage**

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Other Asphalt Surfaces	19.75	Acre	19.75	860,310.00	0
Parking Lot	9.40	Acre	9.40	409,464.00	0
City Park	9.94	Acre	9.94	432,986.40	0
Hotel	300.00	Room	4.32	486,100.00	0
Recreational Swimming Pool	203.50	1000sqft	4.67	203,500.00	0
Condo/Townhouse	700.00	Dwelling Unit	27.40	700,000.00	2036
Strip Mall	126.40	1000sqft	1.52	126,400.00	0

**1.2 Other Project Characteristics**

Urbanization	Urban	Wind Speed (m/s)	2.6	Precipitation Freq (Days)	40
Climate Zone	13			Operational Year	2024

Utility Company San Diego Gas & Electric

CO2 Intensity (lb/MW/hr)	720.49	CH4 Intensity (lb/MW/hr)	0.029	N2O Intensity (lb/MW/hr)	0.006
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**1.3 User Entered Comments & Non-Default Data**

Ocean KAMP Project - San Diego County, Summer

Project Characteristics - Consistent with DSEIR's model.

Land Use - See SWAPE comment regarding Hotel land use

Construction Phase - See SWAPE comment on "Unsubstantiated Changes to Individual Construction Phase Lengths"

Off-road Equipment - Consistent with DSEIR's model.

Trips and VMT - Consistent with DSEIR's model.

Grading - Consistent with DSEIR's model.

Architectural Coating - See SWAPE comment on "Unsubstantiated Reductions to Architectural and Area Coating Emission Factors"

Vehicle Trips - Consistent with DSEIR's model.

Road Dust - Consistent with DSEIR's model

Woodstoves - Consistent with DSEIR's model.

Area Coating - See SWAPE comment on "Unsubstantiated Reductions to Architectural and Area Coating Emission Factors"

Energy Use - Electricity values consistent with the DSEIR's model. See SWAP comment regarding natural gas energy values.

Water And Wastewater - Consistent with DSEIR's model.

Solid Waste - Consistent with DSEIR's model.

Construction Off-road Equipment Mitigation - See SWAPE comment on "Incorrect Application of Construction-related Mitigation Measures"

Energy Mitigation - See SWAPE comment on "Incorrect Application of Operational Mitigation Measures"

Vehicle Emission Factors - The DSEIR fails to provide a table of the EMFAC2014 input parameters, so we can't include them.

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	110.00	31.00
tblConstructionPhase	NumDays	1,550.00	441.00

Ocean KAMP Project - San Diego County, Summer

tblConstructionPhase	NumDays	155.00	44.00
tblConstructionPhase	NumDays	110.00	31.00
tblEnergyUse	LightingElect	4.50	0.00
tblEnergyUse	LightingElect	6.22	0.00
tblEnergyUse	NT24E	3.67	0.00
tblEnergyUse	NT24E	3.16	0.00
tblEnergyUse	T24E	4.78	28.06
tblEnergyUse	T24E	3.18	0.00
tblFireplaces	NumberGas	385.00	0.00
tblFireplaces	NumberNoFireplace	70.00	100.00
tblFireplaces	NumberWood	245.00	0.00
tblGrading	MaterialExported	0.00	300,000.00
tblLandUse	LandUseSquareFeet	435,600.00	486,100.00
tblLandUse	LotAcreage	10.00	4.32
tblLandUse	LotAcreage	43.75	27.40
tblLandUse	LotAcreage	2.90	1.52
tblLandUse	Population	2,002.00	2,036.00
tblRoadDust	RoadPercentPave	100	98.7
tblSolidWaste	SolidWasteGenerationRate	0.85	0.00
tblSolidWaste	SolidWasteGenerationRate	322.00	3,852.00
tblSolidWaste	SolidWasteGenerationRate	164.25	947.00
tblSolidWaste	SolidWasteGenerationRate	1,159.95	0.00
tblSolidWaste	SolidWasteGenerationRate	132.72	0.00
tblTripsAndVMT	Hauling TripNumber	0.00	5,900.00
tblTripsAndVMT	Vendor TripNumber	0.00	10.00
tblVehicleTrips	CC_TL	7.30	7.60
tblVehicleTrips	CC_TL	7.30	7.60

Ocean KAMP Project - San Diego County, Summer

tblVehicleTrips	CC_TL	7.30	5.20
tblVehicleTrips	CC_TTP	61.60	100.00
tblVehicleTrips	CC_TTP	48.00	100.00
tblVehicleTrips	CC_TTP	64.40	100.00
tblVehicleTrips	CNW_TTP	19.00	0.00
tblVehicleTrips	CNW_TTP	19.00	0.00
tblVehicleTrips	CNW_TTP	19.00	0.00
tblVehicleTrips	CW_TTP	19.40	0.00
tblVehicleTrips	CW_TTP	33.00	0.00
tblVehicleTrips	CW_TTP	16.60	0.00
tblVehicleTrips	DV_TP	11.00	0.00
tblVehicleTrips	DV_TP	38.00	0.00
tblVehicleTrips	DV_TP	39.00	0.00
tblVehicleTrips	DV_TP	40.00	0.00
tblVehicleTrips	HO_TTP	39.60	0.00
tblVehicleTrips	HS_TTP	18.80	0.00
tblVehicleTrips	HW_TL	10.80	4.40
tblVehicleTrips	HW_TTP	41.60	100.00
tblVehicleTrips	PB_TP	3.00	0.00
tblVehicleTrips	PB_TP	4.00	0.00
tblVehicleTrips	PB_TP	9.00	0.00
tblVehicleTrips	PB_TP	15.00	0.00
tblVehicleTrips	PR_TP	86.00	100.00
tblVehicleTrips	PR_TP	58.00	100.00
tblVehicleTrips	PR_TP	52.00	100.00
tblVehicleTrips	PR_TP	45.00	100.00
tblVehicleTrips	ST_TR	22.75	0.00

Ocean KAMP Project - San Diego County, Summer

tbiVehicleTrips	ST_TR	5.67	8.14
tbiVehicleTrips	ST_TR	9.10	2.26
tbiVehicleTrips	ST_TR	42.04	45.97
tbiVehicleTrips	SU_TR	16.74	0.00
tbiVehicleTrips	SU_TR	4.84	8.14
tbiVehicleTrips	SU_TR	13.60	2.26
tbiVehicleTrips	SU_TR	20.43	45.97
tbiVehicleTrips	WD_TR	1.89	0.00
tbiVehicleTrips	WD_TR	5.81	8.00
tbiVehicleTrips	WD_TR	8.17	10.00
tbiVehicleTrips	WD_TR	33.82	1.77
tbiVehicleTrips	WD_TR	44.32	79.75
tbiWater	IndoorWaterUseRate	45,607,817.94	35,770,000.00
tbiWater	IndoorWaterUseRate	7,610,031.00	10,950,000.00
tbiWater	IndoorWaterUseRate	12,035,629.81	5,475,000.00
tbiWater	IndoorWaterUseRate	9,362,766.72	3,759,500.00
tbiWater	OutdoorWaterUseRate	11,843,324.62	0.00
tbiWater	OutdoorWaterUseRate	28,752,754.79	15,330,000.00
tbiWater	OutdoorWaterUseRate	845,559.00	2,190,000.00
tbiWater	OutdoorWaterUseRate	7,376,676.34	3,650,000.00
tbiWater	OutdoorWaterUseRate	5,738,469.92	3,195,575.00
tbiWoodstoves	NumberCatalytic	35.00	0.00
tbiWoodstoves	NumberNoncatalytic	35.00	0.00

2.0 Emissions Summary

Ocean KAMP Project - San Diego County, Summer

**2.1 Overall Construction (Maximum Daily Emission)**

**Unmitigated Construction**

Year	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
lb/day																
2021	11,8158	275,4483	92,1963	0,7477	24,7292	3,0395	27,7686	7,8774	2,8208	10,6982	0,0000	80,842,72	80,842,72	9,1424	0,0000	81,071,28
												42	42			32
2022	8,1437	65,7514	66,5614	0,2796	16,0282	0,9848	17,0130	4,3262	0,9262	5,2524	0,0000	28,791,51	28,791,51	1,9268	0,0000	28,839,68
												63	63			64
2023	1,193,885	54,2540	62,7194	0,2713	16,0282	0,8276	16,8558	4,3262	0,7777	5,1038	0,0000	27,971,72	27,971,72	2,0639	0,0000	28,017,01
	9											55	55			45
Maximum	1,193,885	275,4483	92,1963	0,7477	24,7292	3,0395	27,7686	7,8774	2,8208	10,6982	0,0000	80,842,72	80,842,72	9,1424	0,0000	81,071,28
	9											42	42			32

**Mitigated Construction**

Year	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
lb/day																
2021	11,8158	275,4483	92,1963	0,7477	24,7292	3,0395	27,7686	7,8774	2,8208	10,6982	0,0000	80,842,72	80,842,72	9,1424	0,0000	81,071,28
												42	42			32
2022	8,1437	65,7514	66,5614	0,2796	16,0282	0,9848	17,0130	4,3262	0,9262	5,2524	0,0000	28,791,51	28,791,51	1,9268	0,0000	28,839,68
												63	63			64
2023	1,193,885	54,2540	62,7194	0,2713	16,0282	0,8276	16,8558	4,3262	0,7777	5,1038	0,0000	27,971,72	27,971,72	2,0639	0,0000	28,017,01
	9											55	55			45
Maximum	1,193,885	275,4483	92,1963	0,7477	24,7292	3,0395	27,7686	7,8774	2,8208	10,6982	0,0000	80,842,72	80,842,72	9,1424	0,0000	81,071,28
	9											42	42			32

Ocean KAMP Project - San Diego County, Summer

**2.2 Overall Operational**

**Unmitigated Operational**

Category	lb/day															
	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Area	40.4325	0.6657	57.7948	3.0500e-003		0.3202	0.3202		0.3202	0.3202	0.0000	104.1330	104.1330	0.1002	0.0000	106.6369
Energy	1.1441	10.2389	7.5471	0.0624		0.7905	0.7905		0.7905	0.7905		12.48139	12,481.39	0.2392	0.2288	12,555.56
Mobile	24.2534	87.2812	246.5575	0.8811	1,083.358	0.6711	1,084.029	121.1771	0.6243	121.8014		89,810.24	89,810.24	4.4871		89,922.42
<b>Total</b>	<b>66.8300</b>	<b>98.1859</b>	<b>311.8994</b>	<b>0.9465</b>	<b>1,083.358</b>	<b>1.7817</b>	<b>1,085.140</b>	<b>121.1771</b>	<b>1.7350</b>	<b>122.9121</b>	<b>0.0000</b>	<b>102,395.7</b>	<b>102,395.7</b>	<b>4.8265</b>	<b>0.2288</b>	<b>102,584.6</b>
					<b>8</b>		<b>6</b>					<b>766</b>	<b>766</b>			<b>278</b>

**Mitigated Operational**

Category	lb/day															
	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Area	40.4325	0.6657	57.7948	3.0500e-003		0.3202	0.3202		0.3202	0.3202	0.0000	104.1330	104.1330	0.1002	0.0000	106.6369
Energy	1.1441	10.2389	7.5471	0.0624		0.7905	0.7905		0.7905	0.7905		12,481.39	12,481.39	0.2392	0.2288	12,555.56
Mobile	24.2534	87.2812	246.5575	0.8811	1,083.358	0.6711	1,084.029	121.1771	0.6243	121.8014		89,810.24	89,810.24	4.4871		89,922.42
<b>Total</b>	<b>66.8300</b>	<b>98.1859</b>	<b>311.8994</b>	<b>0.9465</b>	<b>1,083.358</b>	<b>1.7817</b>	<b>1,085.140</b>	<b>121.1771</b>	<b>1.7350</b>	<b>122.9121</b>	<b>0.0000</b>	<b>102,395.7</b>	<b>102,395.7</b>	<b>4.8265</b>	<b>0.2288</b>	<b>102,584.6</b>
					<b>8</b>		<b>6</b>					<b>766</b>	<b>766</b>			<b>278</b>

Ocean KAMP Project - San Diego County, Summer

ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio-CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

**3.0 Construction Detail**

**Construction Phase**

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Grading	Grading	7/1/2021	8/31/2021	5	44	
2	Underground Utilities	Trenching	9/1/2021	9/23/2021	5	17	
3	Building Construction	Building Construction	9/24/2021	6/2/2023	5	441	
4	Paving	Paving	6/3/2023	7/17/2023	5	31	
5	Architectural Coating	Architectural Coating	7/18/2023	8/29/2023	5	31	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 110

Acres of Paving: 29.15

Residential Indoor: 1,417,500; Residential Outdoor: 472,500; Non-Residential Indoor: 918,750; Non-Residential Outdoor: 306,250; Striped Parking Area: 76,186 (Architectural Coating – sqft)

**OffRoad Equipment**

Ocean KAMP Project - San Diego County, Summer

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Grading	Excavators	2	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Off-Highway Trucks	2	8.00	402	0.38
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Underground Utilities	Excavators	1	8.00	158	0.38
Underground Utilities	Skid Steer Loaders	1	8.00	65	0.37
Underground Utilities	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Architectural Coating	Air Compressors	1	6.00	78	0.48

**Trips and VMT**

Ocean KAMP Project - San Diego County, Summer

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Grading	10	25.00	0.00	37,500.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Underground Utilities	4	10.00	10.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	1,549.00	488.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	5,900.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	310.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Grading - 2021

Unmitigated Construction On-Site

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio-CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
	lb/day															
Fugitive Dust					9.6314	0.0000	9.6314	3.7416	0.0000	3.7416			0.0000			0.0000
Off-Road	5.4030	56.9266	38.0872	0.0884	2.3715	2.3715	2.3715	2.1817	2.1817	2.1817		8.564.089	8.564.089	2.7698		8.633.334
<b>Total</b>	<b>5.4030</b>	<b>56.9266</b>	<b>38.0872</b>	<b>0.0884</b>	<b>9.6314</b>	<b>2.3715</b>	<b>12.0029</b>	<b>3.7416</b>	<b>2.1817</b>	<b>5.9233</b>		<b>8,564.089</b>	<b>8,564.089</b>	<b>2.7698</b>		<b>8,633.334</b>

Ocean KAMP Project - San Diego County, Summer

**3.2 Grading - 2021**

**Unmitigated Construction Off-Site**

Category	lb/day															
	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Hauling	6.3263	218.4655	53.4461	0.6572	14.8924	0.6666	15.5590	4.0814	0.6377	4.7191		72.075.02 46	72.075.02 46	6.3668		72,234.19 33
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0865	0.0562	0.6631	2.0400e-003	0.2054	1.4200e-003	0.2068	0.0545	1.3100e-003	0.0558		203.6102	203.6102	5.8100e-003		203.7555
<b>Total</b>	<b>6.4128</b>	<b>218.5217</b>	<b>54.1092</b>	<b>0.6693</b>	<b>16.0977</b>	<b>0.6680</b>	<b>15.7657</b>	<b>4.1358</b>	<b>0.6390</b>	<b>4.7749</b>		<b>72,278.63 48</b>	<b>72,278.63 48</b>	<b>6.3726</b>		<b>72,437.94 88</b>

**Mitigated Construction On-Site**

Category	lb/day															
	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Fugitive Dust					9.6314	0.0000	9.6314	3.7416	0.0000	3.7416			0.0000			0.0000
Off-Road	5.4030	56.9266	38.0872	0.0884		2.3715	2.3715	2.1817	2.1817	2.1817	0.0000	8,564.089 4	8,564.089 4	2.7698		8,633.334 4
<b>Total</b>	<b>5.4030</b>	<b>56.9266</b>	<b>38.0872</b>	<b>0.0884</b>	<b>9.6314</b>	<b>2.3715</b>	<b>12.0029</b>	<b>3.7416</b>	<b>2.1817</b>	<b>6.9233</b>	<b>0.0000</b>	<b>8,564.089 4</b>	<b>8,564.089 4</b>	<b>2.7698</b>		<b>8,633.334 4</b>

Ocean KAMP Project - San Diego County, Summer

**3.2 Grading - 2021**

**Mitigated Construction Off-Site**

Category	lb/day															
	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Hauling	6.3263	218.4655	53.4461	0.6572	14.8924	0.6666	15.5590	4.0814	0.6377	4.7191		72.075.02 46	72.075.02 46	6.3668		72,234.19 33
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0865	0.0562	0.6631	2.0400e-003	0.2054	1.4200e-003	0.2068	0.0545	1.3100e-003	0.0558		203.6102	203.6102	5.8100e-003		203,7555
<b>Total</b>	<b>6.4128</b>	<b>218.5217</b>	<b>54.1092</b>	<b>0.6693</b>	<b>15.0977</b>	<b>0.6680</b>	<b>15.7657</b>	<b>4.1358</b>	<b>0.6390</b>	<b>4.7749</b>		<b>72,278.63 48</b>	<b>72,278.63 48</b>	<b>6.3726</b>		<b>72,437.94 88</b>

**3.3 Underground Utilities - 2021**

**Unmitigated Construction On-Site**

Category	lb/day															
	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Off-Road	0.6792	6.9486	9.1822	0.0135		0.3688	0.3688		0.3393	0.3393		1,302.190 5	1,302.190 5	0.4212		1,312.719 4
<b>Total</b>	<b>0.6792</b>	<b>6.9486</b>	<b>9.1822</b>	<b>0.0135</b>		<b>0.3688</b>	<b>0.3688</b>		<b>0.3393</b>	<b>0.3393</b>		<b>1,302.190 5</b>	<b>1,302.190 5</b>	<b>0.4212</b>		<b>1,312.719 4</b>

Ocean KAMP Project - San Diego County, Summer

**3.3 Underground Utilities - 2021**  
**Unmitigated Construction Off-Site**

Category	lb/day																
	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0302	1.0183	0.2595	2.7100e-003	0.0677	2.1400e-003	0.0698	0.0195	2.0500e-003	0.0215	291.3520	291.3520	291.3520	0.0208		291.8724	
Worker	0.0346	0.0225	0.2652	8.2000e-004	0.0822	5.7000e-004	0.0827	0.0218	5.2000e-004	0.0223	81.4441	81.4441	81.4441	2.3200e-003		81.5022	
<b>Total</b>	<b>0.0848</b>	<b>1.0408</b>	<b>0.5247</b>	<b>3.6300e-003</b>	<b>0.1499</b>	<b>2.7100e-003</b>	<b>0.1626</b>	<b>0.0413</b>	<b>2.5700e-003</b>	<b>0.0438</b>	<b>372.7960</b>	<b>372.7960</b>	<b>372.7960</b>	<b>0.0231</b>		<b>373.3746</b>	

**Mitigated Construction On-Site**

Category	lb/day																
	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Off-Road	0.6792	6.9486	9.1822	0.0135		0.3688	0.3688		0.3393	0.3393	0.0000	1,302.1905	1,302.1905	0.4212		1,312.7194	
<b>Total</b>	<b>0.6792</b>	<b>6.9486</b>	<b>9.1822</b>	<b>0.0135</b>		<b>0.3688</b>	<b>0.3688</b>		<b>0.3393</b>	<b>0.3393</b>	<b>0.0000</b>	<b>1,302.1905</b>	<b>1,302.1905</b>	<b>0.4212</b>		<b>1,312.7194</b>	

Ocean KAMP Project - San Diego County, Summer

**3.3 Underground Utilities - 2021  
Mitigated Construction Off-Site**

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
lb/day																
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0302	1.0183	0.2595	2.7100e-003	0.0677	2.1400e-003	0.0698	0.0195	2.0500e-003	0.0215		291.3520	291.3520	0.0208		291.8724
Worker	0.0346	0.0225	0.2652	8.2000e-004	0.0822	5.7000e-004	0.0827	0.0218	5.2000e-004	0.0223		81.4441	81.4441	2.3200e-003		81.5022
<b>Total</b>	<b>0.0648</b>	<b>1.0408</b>	<b>0.5247</b>	<b>3.5300e-003</b>	<b>0.1499</b>	<b>2.7100e-003</b>	<b>0.1626</b>	<b>0.0413</b>	<b>2.5700e-003</b>	<b>0.0438</b>		<b>372.7960</b>	<b>372.7960</b>	<b>0.0231</b>		<b>373.3746</b>

**3.4 Building Construction - 2021  
Unmitigated Construction On-Site**

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
lb/day																
Off-Road	1.9009	17.4321	16.5752	0.0269		0.9586	0.9586		0.9013	0.9013		2,553.3639	2,553.3639	0.6160		2,568.7643
<b>Total</b>	<b>1.9009</b>	<b>17.4321</b>	<b>16.5752</b>	<b>0.0269</b>		<b>0.9586</b>	<b>0.9586</b>		<b>0.9013</b>	<b>0.9013</b>		<b>2,563.3639</b>	<b>2,563.3639</b>	<b>0.6160</b>		<b>2,568.7643</b>

Ocean KAMP Project - San Diego County, Summer

**3.4 Building Construction - 2021  
Unmitigated Construction Off-Site**

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
lb/day																
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000
Vendor	1.4756	49.6928	12.6636	0.1322	3.3036	0.1044	3.4079	0.9510	0.0988	1.0508	14,217.97	49	14,217.97	1.0159		14,243.37
Worker	5.3579	3.4809	41.0654	0.1266	12.7247	0.0879	12.8126	3.3752	0.0810	3.4562	12,615.68	92	12,615.68	0.3600		12,624.69
<b>Total</b>	<b>6.8334</b>	<b>53.1737</b>	<b>53.7490</b>	<b>0.2587</b>	<b>16.0282</b>	<b>0.1923</b>	<b>16.2205</b>	<b>4.3262</b>	<b>0.1808</b>	<b>4.5070</b>	<b>26,833.66</b>	<b>41</b>	<b>26,833.66</b>	<b>1.3760</b>		<b>26,868.06</b>

**Mitigated Construction On-Site**

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
lb/day																
Off-Road	1.9009	17.4321	16.5752	0.0269		0.9586	0.9586		0.9013	0.9013	0.0000	2,553.363	2,553.363	0.6160		2,568.764
<b>Total</b>	<b>1.9009</b>	<b>17.4321</b>	<b>16.5752</b>	<b>0.0269</b>		<b>0.9586</b>	<b>0.9586</b>		<b>0.9013</b>	<b>0.9013</b>	<b>0.0000</b>	<b>2,553.363</b>	<b>2,553.363</b>	<b>0.6160</b>		<b>2,568.764</b>

Ocean KAMP Project - San Diego County, Summer

**3.4 Building Construction - 2021**  
**Mitigated Construction Off-Site**

Category	lb/day															
	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	1.4756	49.6928	12.6636	0.1322	3.3036	0.1044	3.4079	0.9510	0.0998	1.0508		14,217.97 49	14,217.97 49	1.0159		14,243.37 30
Worker	5.3579	3.4809	41.0854	0.1266	12.7247	0.0879	12.8126	3.3752	0.0810	3.4562		12,615.68 92	12,615.68 92	0.3600		12,624.69 02
<b>Total</b>	<b>6.8334</b>	<b>53.1737</b>	<b>53.7490</b>	<b>0.2587</b>	<b>16.0282</b>	<b>0.1923</b>	<b>16.2206</b>	<b>4.3262</b>	<b>0.1808</b>	<b>4.6070</b>		<b>26,833.66 41</b>	<b>26,833.66 41</b>	<b>1.3760</b>		<b>26,868.96 32</b>

**3.4 Building Construction - 2022**  
**Unmitigated Construction On-Site**

Category	lb/day															
	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Off-Road	1.7062	15.6156	16.3634	0.0269		0.8090	0.8090		0.7612	0.7612		2,554.333 6	2,554.333 6	0.6120		2,569.632 2
<b>Total</b>	<b>1.7062</b>	<b>15.6156</b>	<b>16.3634</b>	<b>0.0269</b>		<b>0.8090</b>	<b>0.8090</b>		<b>0.7612</b>	<b>0.7612</b>		<b>2,554.333 6</b>	<b>2,554.333 6</b>	<b>0.6120</b>		<b>2,569.632 2</b>

Ocean KAMP Project - San Diego County, Summer

**3.4 Building Construction - 2022**

**Unmitigated Construction Off-Site**

Category	lb/day																
	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.3723	46.9616	11.9936	0.1307	3.3036	0.0898	3.3934	0.9510	0.0859	1.0369	14,084.35	23	14,084.35	0.9848	24	14,108.97	24
Worker	5.0652	3.1742	38.2044	0.1219	12.7247	0.0860	12.8107	3.3752	0.0792	3.4544	12,152.83	04	12,152.83	0.3301	18	12,161.08	18
<b>Total</b>	<b>6.4375</b>	<b>50.1358</b>	<b>50.1980</b>	<b>0.2526</b>	<b>16.0282</b>	<b>0.1758</b>	<b>16.2040</b>	<b>4.3262</b>	<b>0.1661</b>	<b>4.4912</b>	<b>26,237.18</b>	<b>27</b>	<b>26,237.18</b>	<b>1.3149</b>	<b>42</b>	<b>26,270.05</b>	<b>42</b>

**Mitigated Construction On-Site**

Category	lb/day																
	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Off-Road	1.7062	15.6156	16.3634	0.0269	0.8090	0.8090	0.8090	0.7612	0.7612	0.7612	0.0000	6	2,554.333	0.6120	2	2,569.632	2
<b>Total</b>	<b>1.7062</b>	<b>15.6156</b>	<b>16.3634</b>	<b>0.0269</b>	<b>0.8090</b>	<b>0.8090</b>	<b>0.8090</b>	<b>0.7612</b>	<b>0.7612</b>	<b>0.7612</b>	<b>0.0000</b>	<b>6</b>	<b>2,654.333</b>	<b>0.6120</b>	<b>2</b>	<b>2,669.632</b>	<b>2</b>

Ocean KAMP Project - San Diego County, Summer

**3.4 Building Construction - 2022**

**Mitigated Construction Off-Site**

Category	lb/day																
	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000
Vendor	1.3723	46.9616	11.9936	0.1307	3.3036	0.0898	3.3934	0.9510	0.0859	1.0369	14,084.35	23	14,084.35	0.9848			14,108.97
Worker	5.0652	3.1742	38.2044	0.1219	12.7247	0.0860	12.8107	3.3752	0.0792	3.4544	12,152.83	04	12,152.83	0.3301			12,161.08
<b>Total</b>	<b>6.4376</b>	<b>50.1368</b>	<b>50.1980</b>	<b>0.2626</b>	<b>16.0282</b>	<b>0.1758</b>	<b>16.2040</b>	<b>4.3262</b>	<b>0.1651</b>	<b>4.4912</b>	<b>26,237.18</b>	<b>27</b>	<b>26,237.18</b>	<b>1.3149</b>			<b>26,270.06</b>

**3.4 Building Construction - 2023**

**Unmitigated Construction On-Site**

Category	lb/day																
	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Off-Road	1.5728	14.3849	16.2440	0.0269	0.6997	0.6997	0.6997	0.6584	0.6584	0.6584	2,555.209	9	2,555.209	0.6079			2,570.406
<b>Total</b>	<b>1.5728</b>	<b>14.3849</b>	<b>16.2440</b>	<b>0.0269</b>	<b>0.6997</b>	<b>0.6997</b>	<b>0.6997</b>	<b>0.6584</b>	<b>0.6584</b>	<b>0.6584</b>	<b>2,555.209</b>	<b>9</b>	<b>2,555.209</b>	<b>0.6079</b>			<b>2,570.406</b>

Ocean KAMP Project - San Diego County, Summer

**3.4 Building Construction - 2023**  
**Unmitigated Construction Off-Site**

Category	lb/day																
	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.0581	36.9703	10.9965	0.1271	3.3035	0.0436	3.3471	0.9510	0.0416	0.9926	13.72827	13.72827	13.72827	0.9016		13,750.81	10
Worker	4.7980	2.8988	35.4889	0.1172	12.7247	0.0843	12.8090	3.3752	0.0776	3.4528	11.688.24	11.688.24	11.688.24	0.3021		11,695.79	75
<b>Total</b>	<b>5.8541</b>	<b>39.8691</b>	<b>46.4754</b>	<b>0.2444</b>	<b>16.0282</b>	<b>0.1279</b>	<b>16.1651</b>	<b>4.3262</b>	<b>0.1193</b>	<b>4.4454</b>	<b>25,416.51</b>	<b>25,416.51</b>	<b>25,416.51</b>	<b>1.2037</b>		<b>25,446.80</b>	<b>85</b>

**Mitigated Construction On-Site**

Category	lb/day																
	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Off-Road	1.5728	14.3849	16.2440	0.0269		0.6997	0.6997		0.6584	0.6584	0.0000	2,555.209	2,555.209	0.6079		2,570.406	1
<b>Total</b>	<b>1.5728</b>	<b>14.3849</b>	<b>16.2440</b>	<b>0.0269</b>		<b>0.6997</b>	<b>0.6997</b>		<b>0.6584</b>	<b>0.6584</b>	<b>0.0000</b>	<b>2,555.209</b>	<b>2,555.209</b>	<b>0.6079</b>		<b>2,570.406</b>	<b>1</b>

Ocean KAMP Project - San Diego County, Summer

**3.4 Building Construction - 2023**  
**Mitigated Construction Off-Site**

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
lb/day																
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000
Vendor	1.0591	36.9703	10.9865	0.1271	3.3035	0.0436	3.3471	0.9510	0.0416	0.9926	13,728.27	13	13,728.27	0.9016		13,750.81
Worker	4.7960	2.8988	35.4889	0.1172	12.7247	0.0843	12.8090	3.3752	0.0776	3.4528	11,688.24	43	11,688.24	0.3021		11,695.79
<b>Total</b>	<b>6.8541</b>	<b>39.8691</b>	<b>46.4764</b>	<b>0.2444</b>	<b>16.0282</b>	<b>0.1279</b>	<b>16.1661</b>	<b>4.3262</b>	<b>0.1193</b>	<b>4.4454</b>	<b>25,416.51</b>	<b>56</b>	<b>25,416.51</b>	<b>1.2037</b>		<b>25,446.60</b>

**3.5 Paving - 2023**  
**Unmitigated Construction On-Site**

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
lb/day																
Off-Road	1.0327	10.1917	14.5642	0.0228		0.5102	0.5102		0.4694	0.4694			2,207.584	0.7140		2,225.433
Paving	2.4637					0.0000	0.0000		0.0000	0.0000			1			0.0000
<b>Total</b>	<b>3.4964</b>	<b>10.1917</b>	<b>14.5642</b>	<b>0.0228</b>		<b>0.5102</b>	<b>0.5102</b>		<b>0.4694</b>	<b>0.4694</b>			<b>2,207.684</b>	<b>0.7140</b>		<b>2,226.433</b>

Ocean KAMP Project - San Diego County, Summer

**3.5 Paving - 2023**

**Unmitigated Construction Off-Site**

Category	lb/day															
	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Hauling	0.9484	30.7815	11.1754	0.1391	3.3256	0.0570	3.3826	0.9114	0.0545	0.9659		15,346.40 64	15,346.40 64	1.3470		15,380.08 14
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0464	0.0281	0.3437	1.1400e-003	0.1232	8.2000e-004	0.1240	0.0327	7.5000e-004	0.0334		113.1851	113.1851	2.9300e-003		113.2582
<b>Total</b>	<b>0.9949</b>	<b>30.8096</b>	<b>11.5190</b>	<b>0.1402</b>	<b>3.4488</b>	<b>0.0578</b>	<b>3.5066</b>	<b>0.9441</b>	<b>0.0552</b>	<b>0.9993</b>		<b>15,459.59 15</b>	<b>15,459.59 15</b>	<b>1.3499</b>		<b>15,493.33 96</b>

**Mitigated Construction On-Site**

Category	lb/day															
	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Off-Road	1.0327	10.1917	14.5842	0.0228		0.5102	0.5102		0.4694	0.4694	0.0000	2,207.584 1	2,207.584 1	0.7140		2,225.433 6
Paving	2.4637					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
<b>Total</b>	<b>3.4964</b>	<b>10.1917</b>	<b>14.5842</b>	<b>0.0228</b>		<b>0.5102</b>	<b>0.5102</b>		<b>0.4694</b>	<b>0.4694</b>	<b>0.0000</b>	<b>2,207.584 1</b>	<b>2,207.584 1</b>	<b>0.7140</b>		<b>2,225.433 6</b>

Ocean KAMP Project - San Diego County, Summer

**3.5 Paving - 2023**

**Mitigated Construction Off-Site**

Category	lb/day											lb/day				
	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Hauling	0.9484	30.7815	11.1754	0.1391	3.3256	0.0570	3.3826	0.9114	0.0545	0.9659		15.346.40	15.346.40	1.3470		15.380.08
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		64	64	0.0000		14
Worker	0.0464	0.0281	0.3437	1.1400e-003	0.1232	8.2000e-004	0.1240	0.0327	7.5000e-004	0.0334		113.1851	113.1851	2.9300e-003		113.2582
<b>Total</b>	<b>0.9949</b>	<b>30.8096</b>	<b>11.5190</b>	<b>0.1402</b>	<b>3.4488</b>	<b>0.0578</b>	<b>3.5066</b>	<b>0.9441</b>	<b>0.0652</b>	<b>0.9993</b>		<b>15.469.69</b>	<b>15.469.69</b>	<b>1.3499</b>		<b>15,493.33</b>

**3.6 Architectural Coating - 2023**

**Unmitigated Construction On-Site**

Category	lb/day											lb/day				
	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Archit. Coating	1,192.834					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1917	1.3030	1.8111	2.9700e-003	0.0708	0.0708	0.0708	0.0708	0.0708	0.0708		281.4481	281.4481	0.0168		281.8690
<b>Total</b>	<b>1,193.026</b>	<b>1.3030</b>	<b>1.8111</b>	<b>2.9700e-003</b>	<b>0.0708</b>	<b>0.0708</b>	<b>0.0708</b>	<b>0.0708</b>	<b>0.0708</b>	<b>0.0708</b>		<b>281.4481</b>	<b>281.4481</b>	<b>0.0168</b>		<b>281.8690</b>

Ocean KAMP Project - San Diego County, Summer

**3.6 Architectural Coating - 2023**  
**Unmitigated Construction Off-Site**

Category	lb/day																
	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.9598	0.5801	7.1024	0.0235	2.5466	0.0169	2.5635	0.6755	0.0155	0.6910	2,339.158	0	2,339.158	0.0605	0	2,340.669	6
<b>Total</b>	<b>0.9598</b>	<b>0.5801</b>	<b>7.1024</b>	<b>0.0235</b>	<b>2.5466</b>	<b>0.0169</b>	<b>2.5635</b>	<b>0.6755</b>	<b>0.0155</b>	<b>0.6910</b>	<b>2,339.158</b>	<b>0</b>	<b>2,339.158</b>	<b>0.0605</b>	<b>0</b>	<b>2,340.669</b>	<b>6</b>

**Mitigated Construction On-Site**

Category	lb/day																
	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Archit Coating	1.192834					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000	
Off-Road	0.1917	1.3030	1.8111	2.9700e-003	0.0708	0.0708	0.0708	0.0708	0.0708	0.0708	0.0000	281.4481	281.4481	0.0168		281.8690	
<b>Total</b>	<b>1.193026</b>	<b>1.3030</b>	<b>1.8111</b>	<b>2.9700e-003</b>	<b>0.0708</b>	<b>0.0708</b>	<b>0.0708</b>	<b>0.0708</b>	<b>0.0708</b>	<b>0.0708</b>	<b>0.0000</b>	<b>281.4481</b>	<b>281.4481</b>	<b>0.0168</b>		<b>281.8690</b>	

Ocean KAMP Project - San Diego County, Summer

**3.6 Architectural Coating - 2023**

**Mitigated Construction Off-Site**

Category	lb/day											lb/day					
	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Biogenic CO2	NBiogenic CO2	Total CO2	CH4	N2O	CO2e	
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.9598	0.5801	7.1024	0.0235	2.5466	0.0169	2.5635	0.6755	0.0155	0.6910	2,339.158	0	2,339.158	0.0605	0	2,340.669	6
<b>Total</b>	<b>0.9598</b>	<b>0.5801</b>	<b>7.1024</b>	<b>0.0236</b>	<b>2.5466</b>	<b>0.0169</b>	<b>2.5635</b>	<b>0.6755</b>	<b>0.0155</b>	<b>0.6910</b>	<b>2,339.158</b>	<b>0</b>	<b>2,339.158</b>	<b>0.0605</b>	<b>0</b>	<b>2,340.669</b>	<b>6</b>

**4.0 Operational Detail - Mobile**

**4.1 Mitigation Measures Mobile**

Ocean KAMP Project - San Diego County, Summer

Category	lb/day															
	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bk-CO2	NBlk-CO2	Total CO2	CH4	N2O	CO2e
Mitigated	24,2534	87,2812	246,5575	0,8811	1,083,3588	0,6711	1,084,0299	121,1771	0,6243	121,8014	89,810,24	89,810,24	89,810,24	4,4871		89,922,4265
Unmitigated	24,2534	87,2812	246,5575	0,8811	1,083,3588	0,6711	1,084,0299	121,1771	0,6243	121,8014	89,810,24	89,810,24	89,810,24	4,4871		89,922,4265

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated		Mitigated	
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT	Annual VMT	Annual VMT
City Park	0.00	0.00	0.00				
Condo/Townhouse	5,600.00	5,698.00	5,698.00	9,013,805	9,013,805	9,013,805	9,013,805
Hotel	3,000.00	2,457.00	1,785.00	7,604,438	7,604,438	7,604,438	7,604,438
Other Asphalt Surfaces	0.00	0.00	0.00				
Parking Lot	0.00	0.00	0.00				
Recreational Swimming Pool	360.20	459.91	459.91	1,075,258	1,075,258	1,075,258	1,075,258
Strip Mall	10,080.40	5,810.61	5,810.61	16,771,078	16,771,078	16,771,078	16,771,078
<b>Total</b>	<b>19,040.60</b>	<b>14,425.52</b>	<b>13,753.52</b>	<b>34,464,579</b>	<b>34,464,579</b>	<b>34,464,579</b>	<b>34,464,579</b>

4.3 Trip Type Information

Ocean KAMP Project - San Diego County, Summer

Land Use	Miles				Trip %				Trip Purpose %			
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
City Park	9.50	7.30	7.30	33.00	48.00	19.00	66	28	6			
Condo/Townhouse	4.40	7.30	7.50	100.00	0.00	0.00	100	0	0			
Hotel	9.50	7.60	7.30	0.00	100.00	0.00	100	0	0			
Other Asphalt Surfaces	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0			
Parking Lot	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0			
Recreational Swimming Pool	9.50	7.60	7.30	0.00	100.00	0.00	100	0	0			
Strip Mall	9.50	5.20	7.30	0.00	100.00	0.00	100	0	0			

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
City Park	0.606234	0.039465	0.179154	0.102641	0.014368	0.005395	0.016820	0.024508	0.001929	0.001857	0.005869	0.000761	0.000998
Condo/Townhouse	0.606234	0.039465	0.179154	0.102641	0.014368	0.005395	0.016820	0.024508	0.001929	0.001857	0.005869	0.000761	0.000998
Hotel	0.606234	0.039465	0.179154	0.102641	0.014368	0.005395	0.016820	0.024508	0.001929	0.001857	0.005869	0.000761	0.000998
Other Asphalt Surfaces	0.606234	0.039465	0.179154	0.102641	0.014368	0.005395	0.016820	0.024508	0.001929	0.001857	0.005869	0.000761	0.000998
Parking Lot	0.606234	0.039465	0.179154	0.102641	0.014368	0.005395	0.016820	0.024508	0.001929	0.001857	0.005869	0.000761	0.000998
Recreational Swimming Pool	0.606234	0.039465	0.179154	0.102641	0.014368	0.005395	0.016820	0.024508	0.001929	0.001857	0.005869	0.000761	0.000998
Strip Mall	0.606234	0.039465	0.179154	0.102641	0.014368	0.005395	0.016820	0.024508	0.001929	0.001857	0.005869	0.000761	0.000998

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Ocean KAMP Project - San Diego County, Summer

Category	lb/day										lb/day					
	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio-CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Natural Gas Mitigated	1.1441	10.2389	7.5471	0.0624	0.7905	0.7905	0.7905	0.7905	0.7905	0.7905		12,481.39	12,481.39	0.2392	0.2288	12,555.56
Natural Gas Unmitigated	1.1441	10.2389	7.5471	0.0624	0.7905	0.7905	0.7905	0.7905	0.7905	0.7905		12,481.39	12,481.39	0.2392	0.2288	12,555.56

Ocean KAMP Project - San Diego County, Summer

5.2 Energy by Land Use - NaturalGas

Unmitigated

Land Use	NaturalGas Use kBTU/yr	lb/day										lb/day						
		ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
City Park	0	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Condo/Townhouse	27563.5	0.2975	2.5420	1.0817	0.0162	0.2055	0.2055	0.2055	0.2055	0.2055	0.2055	0.2055	0.2055	3,245.123 3	0.0622	0.0595	3,264.407 4	
Hotel	77736	0.8383	7.6212	6.4018	0.0457	0.5792	0.5792	0.5792	0.5792	0.5792	0.5792	0.5792	0.5792	9,145.417 2	0.1753	0.1677	9,199.763 9	
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Recreational Swimming Pool	0	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Strip Mall	772.252	8.3300e-003	0.0757	0.0636	4.5000e-004	5.7500e-003	5.7500e-003	5.7500e-003	5.7500e-003	5.7500e-003	5.7500e-003	5.7500e-003	5.7500e-003	90.8532	1.7400e-003	1.6700e-003	91.3931	
<b>Total</b>		<b>1.1441</b>	<b>10.2389</b>	<b>7.5471</b>	<b>0.0624</b>	<b>0.7905</b>	<b>0.7905</b>	<b>0.7905</b>	<b>0.7905</b>	<b>0.7905</b>	<b>0.7905</b>	<b>0.7905</b>	<b>0.7905</b>	<b>12,481.39 37</b>	<b>0.2392</b>	<b>0.2268</b>	<b>12,555.66 44</b>	

Ocean KAMP Project - San Diego County, Summer

5.2 Energy by Land Use - NaturalGas

Mitigated

Land Use	NaturalGas Use KBTU/yr	lb/day										CO2e					
		ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total		Bib- CO2	NBib- CO2	Total CO2	CH4	N2O
City Park	0	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Condo/Townhouse	27.5835	0.2975	2.5420	1.0817	0.0182	0.2055	0.2055	0.2055	0.2055	0.2055	0.2055	0.2055	3.245.123 3	3.245.123 3	0.0622	0.0595	3.264.407 4
Hotel	77.736	0.8383	7.6212	6.4018	0.0457	0.5792	0.5792	0.5792	0.5792	0.5792	0.5792	0.5792	9.145.417 2	9.145.417 2	0.1753	0.1677	9.199.763 9
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Recreational Swimming Pool	0	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Strip Mall	0.772252	8.3300e-003	0.0757	0.0636	4.5000e-004	5.7500e-003	5.7500e-003	5.7500e-003	5.7500e-003	5.7500e-003	5.7500e-003	5.7500e-003	90.8532	90.8532	1.7400e-003	1.6700e-003	91.3931
<b>Total</b>		<b>1.1441</b>	<b>10.2389</b>	<b>7.6471</b>	<b>0.0624</b>	<b>0.7906</b>	<b>0.7906</b>	<b>0.7906</b>	<b>0.7906</b>	<b>0.7906</b>	<b>0.7906</b>	<b>0.7906</b>	<b>12.481.39 37</b>	<b>12.481.39 37</b>	<b>0.2392</b>	<b>0.2288</b>	<b>12.565.66 44</b>

6.0 Area Detail

6.1 Mitigation Measures Area

Ocean KAMP Project - San Diego County, Summer

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
lb/day																
Mitigated	40.4325	0.6657	57.7948	3.0500e-003		0.3202	0.3202		0.3202	0.3202	0.0000	104.1330	104.1330	0.1002	0.0000	106.6369
Unmitigated	40.4325	0.6657	57.7948	3.0500e-003		0.3202	0.3202		0.3202	0.3202	0.0000	104.1330	104.1330	0.1002	0.0000	106.6369

6.2 Area by SubCategory

Unmitigated

SubCategory	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
lb/day																
Architectural Coating	10.1309					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	28.5596					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	1.7420	0.6657	57.7948	3.0500e-003		0.3202	0.3202		0.3202	0.3202		104.1330	104.1330	0.1002		106.6369
<b>Total</b>	<b>40.4325</b>	<b>0.6657</b>	<b>57.7948</b>	<b>3.0500e-003</b>		<b>0.3202</b>	<b>0.3202</b>		<b>0.3202</b>	<b>0.3202</b>	<b>0.0000</b>	<b>104.1330</b>	<b>104.1330</b>	<b>0.1002</b>	<b>0.0000</b>	<b>106.6369</b>

Ocean KAMP Project - San Diego County, Summer

**6.2 Area by SubCategory**

Mitigated

SubCategory	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
	lb/day															
Architectural Coating	10.1309					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	28.5596					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Landscaping	1.7420	0.6657	57.7948	3.0500e-003		0.3202	0.3202		0.3202	0.3202		104.1330	104.1330	0.1002		106.6369
<b>Total</b>	<b>40.4325</b>	<b>0.6657</b>	<b>57.7948</b>	<b>3.0600e-003</b>		<b>0.3202</b>	<b>0.3202</b>		<b>0.3202</b>	<b>0.3202</b>	<b>0.0000</b>	<b>104.1330</b>	<b>104.1330</b>	<b>0.1002</b>	<b>0.0000</b>	<b>106.6369</b>

**7.0 Water Detail**

**7.1 Mitigation Measures Water**

**8.0 Waste Detail**

**8.1 Mitigation Measures Waste**

**9.0 Operational Offroad**

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

**10.0 Stationary Equipment**

Ocean KAMP Project - San Diego County, Summer

**Fire Pumps and Emergency Generators**

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
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**Boilers**

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type
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**User Defined Equipment**

Equipment Type	Number
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**11.0 Vegetation**

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Ocean KAMP Project - San Diego County, Winter

**Ocean KAMP Project**  
San Diego County, Winter

**1.0 Project Characteristics**

**1.1 Land Usage**

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Other Asphalt Surfaces	19.75	Acre	19.75	860,310.00	0
Parking Lot	9.40	Acre	9.40	409,464.00	0
City Park	9.94	Acre	9.94	432,986.40	0
Hotel	300.00	Room	4.32	486,100.00	0
Recreational Swimming Pool	203.50	1000sqft	4.67	203,500.00	0
Condo/Townhouse	700.00	Dwelling Unit	27.40	700,000.00	2036
Strip Mall	126.40	1000sqft	1.52	126,400.00	0

**1.2 Other Project Characteristics**

Urbanization	Urban	Wind Speed (m/s)	2.6	Precipitation Freq (Days)	40
Climate Zone	13			Operational Year	2024

Utility Company San Diego Gas & Electric

CO2 Intensity (lb/MW/hr)	720.49	CH4 Intensity (lb/MW/hr)	0.029	N2O Intensity (lb/MW/hr)	0.006
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**1.3 User Entered Comments & Non-Default Data**

Ocean KAMP Project - San Diego County, Winter

Project Characteristics - Consistent with DSEIR's model.

Land Use - See SWAPE comment regarding Hotel land use

Construction Phase - See SWAPE comment on "Unsubstantiated Changes to Individual Construction Phase Lengths"

Off-road Equipment - Consistent with DSEIR's model.

Trips and VMT - Consistent with DSEIR's model.

Grading - Consistent with DSEIR's model.

Architectural Coating - See SWAPE comment on "Unsubstantiated Reductions to Architectural and Area Coating Emission Factors"

Vehicle Trips - Consistent with DSEIR's model.

Road Dust - Consistent with DSEIR's model.

Woodstoves - Consistent with DSEIR's model.

Area Coating - See SWAPE comment on "Unsubstantiated Reductions to Architectural and Area Coating Emission Factors"

Energy Use - Electricity values consistent with the DSEIR's model. See SWAP comment regarding natural gas energy values.

Water And Wastewater - Consistent with DSEIR's model.

Solid Waste - Consistent with DSEIR's model.

Construction Off-road Equipment Mitigation - See SWAPE comment on "Incorrect Application of Construction-related Mitigation Measures"

Energy Mitigation - See SWAPE comment on "Incorrect Application of Operational Mitigation Measures"

Vehicle Emission Factors - The DSEIR fails to provide a table of the EMFAC2014 input parameters, so we can't include them.

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	110.00	31.00
tblConstructionPhase	NumDays	1,550.00	441.00

Ocean KAMP Project - San Diego County, Winter

tblConstructionPhase	NumDays	155.00	44.00
tblConstructionPhase	NumDays	110.00	31.00
tblEnergyUse	LightingElect	4.50	0.00
tblEnergyUse	LightingElect	6.22	0.00
tblEnergyUse	NT24E	3.67	0.00
tblEnergyUse	NT24E	3.16	0.00
tblEnergyUse	T24E	4.78	28.06
tblEnergyUse	T24E	3.18	0.00
tblFireplaces	NumberGas	365.00	0.00
tblFireplaces	NumberNoFireplace	70.00	100.00
tblFireplaces	NumberWood	245.00	0.00
tblGrading	MaterialExported	0.00	300,000.00
tblLandUse	LandUseSquareFeet	435,600.00	486,100.00
tblLandUse	LotAcreage	10.00	4.32
tblLandUse	LotAcreage	43.75	27.40
tblLandUse	LotAcreage	2.90	1.52
tblLandUse	Population	2,002.00	2,036.00
tblRoadDust	RoadPercentPave	100	98.7
tblSolidWaste	SolidWasteGenerationRate	0.85	0.00
tblSolidWaste	SolidWasteGenerationRate	322.00	3,852.00
tblSolidWaste	SolidWasteGenerationRate	164.25	947.00
tblSolidWaste	SolidWasteGenerationRate	1,159.95	0.00
tblSolidWaste	SolidWasteGenerationRate	132.72	0.00
tblTripsAndVMT	Hauling TripNumber	0.00	5,900.00
tblTripsAndVMT	Vendor TripNumber	0.00	10.00
tblVehicleTrips	CC_TL	7.30	7.60
tblVehicleTrips	CC_TL	7.30	7.60

Ocean KAMP Project - San Diego County, Winter

tblVehicleTrips	CC_TL	7.30	5.20
tblVehicleTrips	CC_TTP	61.60	100.00
tblVehicleTrips	CC_TTP	48.00	100.00
tblVehicleTrips	CC_TTP	64.40	100.00
tblVehicleTrips	CNW_TTP	19.00	0.00
tblVehicleTrips	CNW_TTP	19.00	0.00
tblVehicleTrips	CNW_TTP	19.00	0.00
tblVehicleTrips	CW_TTP	19.40	0.00
tblVehicleTrips	CW_TTP	33.00	0.00
tblVehicleTrips	CW_TTP	16.60	0.00
tblVehicleTrips	DV_TP	11.00	0.00
tblVehicleTrips	DV_TP	38.00	0.00
tblVehicleTrips	DV_TP	39.00	0.00
tblVehicleTrips	DV_TP	40.00	0.00
tblVehicleTrips	HO_TTP	39.60	0.00
tblVehicleTrips	HS_TTP	18.80	0.00
tblVehicleTrips	HW_TL	10.80	4.40
tblVehicleTrips	HW_TTP	41.60	100.00
tblVehicleTrips	PB_TP	3.00	0.00
tblVehicleTrips	PB_TP	4.00	0.00
tblVehicleTrips	PB_TP	9.00	0.00
tblVehicleTrips	PB_TP	15.00	0.00
tblVehicleTrips	PR_TP	86.00	100.00
tblVehicleTrips	PR_TP	58.00	100.00
tblVehicleTrips	PR_TP	52.00	100.00
tblVehicleTrips	PR_TP	45.00	100.00
tblVehicleTrips	ST_TR	22.75	0.00

Ocean KAMP Project - San Diego County, Winter

tblVehicleTrips	ST_TR	5.67	8.14
tblVehicleTrips	ST_TR	9.10	2.26
tblVehicleTrips	ST_TR	42.04	45.97
tblVehicleTrips	SU_TR	16.74	0.00
tblVehicleTrips	SU_TR	4.84	8.14
tblVehicleTrips	SU_TR	13.60	2.26
tblVehicleTrips	SU_TR	20.43	45.97
tblVehicleTrips	WD_TR	1.89	0.00
tblVehicleTrips	WD_TR	5.81	8.00
tblVehicleTrips	WD_TR	8.17	10.00
tblVehicleTrips	WD_TR	33.82	1.77
tblVehicleTrips	WD_TR	44.32	79.75
tblWater	IndoorWaterUseRate	45,607,817.94	35,770,000.00
tblWater	IndoorWaterUseRate	7,610,031.00	10,950,000.00
tblWater	IndoorWaterUseRate	12,035,629.81	5,475,000.00
tblWater	IndoorWaterUseRate	9,362,766.72	3,759,500.00
tblWater	OutdoorWaterUseRate	11,843,324.62	0.00
tblWater	OutdoorWaterUseRate	28,752,754.79	15,330,000.00
tblWater	OutdoorWaterUseRate	845,559.00	2,190,000.00
tblWater	OutdoorWaterUseRate	7,376,676.34	3,650,000.00
tblWater	OutdoorWaterUseRate	5,738,469.92	3,195,575.00
tblWoodstoves	NumberCatalytic	35.00	0.00
tblWoodstoves	NumberNoncatalytic	35.00	0.00

2.0 Emissions Summary

Ocean KAMP Project - San Diego County, Winter

**2.1 Overall Construction (Maximum Daily Emission)**

**Unmitigated Construction**

Year	lb/day															
	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
2021	12.0022	277.3397	95.5211	0.7362	24.7292	3.0536	27.7828	7.8774	2.8343	10.7117	0.0000	79,584.98 <sub>98</sub>	79,584.98 <sub>98</sub>	9.3512	0.0000	79,818.77 <sub>04</sub>
2022	8.9110	65.9804	65.5503	0.2688	16.0282	0.9886	17.0168	4.3262	0.9298	5.2560	0.0000	27,680.92 <sub>27</sub>	27,680.92 <sub>27</sub>	1.9680	0.0000	27,730.12 <sub>21</sub>
2023	1,194.120 <sub>3</sub>	54.4424	61.5198	0.2609	16.0282	0.8300	16.8582	4.3262	0.7800	5.1062	0.0000	26,902.85 <sub>02</sub>	26,902.85 <sub>02</sub>	2.0998	0.0000	26,948.93 <sub>34</sub>
Maximum	1,194.120 <sub>3</sub>	277.3397	95.5211	0.7362	24.7292	3.0536	27.7828	7.8774	2.8343	10.7117	0.0000	79,584.98 <sub>98</sub>	79,584.98 <sub>98</sub>	9.3512	0.0000	79,818.77 <sub>04</sub>

**Mitigated Construction**

Year	lb/day															
	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
2021	12.0022	277.3397	95.5211	0.7362	24.7292	3.0536	27.7828	7.8774	2.8343	10.7117	0.0000	79,584.98 <sub>98</sub>	79,584.98 <sub>98</sub>	9.3512	0.0000	79,818.77 <sub>04</sub>
2022	8.9110	65.9804	65.5503	0.2688	16.0282	0.9886	17.0168	4.3262	0.9298	5.2560	0.0000	27,680.92 <sub>27</sub>	27,680.92 <sub>27</sub>	1.9680	0.0000	27,730.12 <sub>21</sub>
2023	1,194.120 <sub>3</sub>	54.4424	61.5198	0.2609	16.0282	0.8300	16.8582	4.3262	0.7800	5.1062	0.0000	26,902.85 <sub>02</sub>	26,902.85 <sub>02</sub>	2.0998	0.0000	26,948.93 <sub>34</sub>
Maximum	1,194.120 <sub>3</sub>	277.3397	95.5211	0.7362	24.7292	3.0536	27.7828	7.8774	2.8343	10.7117	0.0000	79,584.98 <sub>98</sub>	79,584.98 <sub>98</sub>	9.3512	0.0000	79,818.77 <sub>04</sub>



Ocean KAMP Project - San Diego County, Winter

**2.2 Overall Operational  
Unmitigated Operational**

Category	lb/day															
	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Area	40.4325	0.6657	57.7948	3.0500e-003		0.3202	0.3202		0.3202	0.3202	0.0000	104.1330	104.1330	0.1002	0.0000	106.6369
Energy	1.1441	10.2389	7.5471	0.0624		0.7905	0.7905		0.7905	0.7905		12,481.39	12,481.39	0.2392	0.2288	12,555.56
Mobile	23.4098	89.0925	246.3028	0.8351	1,083.3588	0.6753	1,084.0341	121.1771	0.6283	121.8055		85,159.84	85,159.84	4.5441		85,273.45
<b>Total</b>	<b>64.9864</b>	<b>99.9972</b>	<b>311.6447</b>	<b>0.9006</b>	<b>1,083.3588</b>	<b>1.7860</b>	<b>1,085.1448</b>	<b>121.1771</b>	<b>1.7390</b>	<b>122.9161</b>	<b>0.0000</b>	<b>97,745.37</b>	<b>97,745.37</b>	<b>4.8835</b>	<b>0.2288</b>	<b>97,935.65</b>
												<b>44</b>	<b>44</b>			<b>16</b>

**Mitigated Operational**

Category	lb/day															
	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Area	40.4325	0.6657	57.7948	3.0500e-003		0.3202	0.3202		0.3202	0.3202	0.0000	104.1330	104.1330	0.1002	0.0000	106.6369
Energy	1.1441	10.2389	7.5471	0.0624		0.7905	0.7905		0.7905	0.7905		12,481.39	12,481.39	0.2392	0.2288	12,555.56
Mobile	23.4098	89.0925	246.3028	0.8351	1,083.3588	0.6753	1,084.0341	121.1771	0.6283	121.8055		85,159.84	85,159.84	4.5441		85,273.45
<b>Total</b>	<b>64.9864</b>	<b>99.9972</b>	<b>311.6447</b>	<b>0.9006</b>	<b>1,083.3588</b>	<b>1.7860</b>	<b>1,085.1448</b>	<b>121.1771</b>	<b>1.7390</b>	<b>122.9161</b>	<b>0.0000</b>	<b>97,745.37</b>	<b>97,745.37</b>	<b>4.8835</b>	<b>0.2288</b>	<b>97,935.65</b>
												<b>44</b>	<b>44</b>			<b>16</b>

Ocean KAMP Project - San Diego County, Winter

ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

**3.0 Construction Detail**

**Construction Phase**

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Grading	Grading	7/1/2021	8/31/2021	5	44	
2	Underground Utilities	Trenching	9/1/2021	9/23/2021	5	17	
3	Building Construction	Building Construction	9/24/2021	6/2/2023	5	441	
4	Paving	Paving	6/3/2023	7/17/2023	5	31	
5	Architectural Coating	Architectural Coating	7/18/2023	8/29/2023	5	31	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 110

Acres of Paving: 29.15

Residential Indoor: 1,417,500; Residential Outdoor: 472,500; Non-Residential Indoor: 918,750; Non-Residential Outdoor: 306,250; Striped Parking Area: 76,186 (Architectural Coating – sqft)

**OffRoad Equipment**

Ocean KAMP Project - San Diego County, Winter

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Grading	Excavators	2	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Off-Highway Trucks	2	8.00	402	0.38
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Underground Utilities	Excavators	1	8.00	158	0.38
Underground Utilities	Skid Steer Loaders	1	8.00	65	0.37
Underground Utilities	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Ocean KAMP Project - San Diego County, Winter

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Grading	10	25.00	0.00	37,500.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Underground Utilities	4	10.00	10.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	1,549.00	488.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	5,900.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	310.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Grading - 2021

Unmitigated Construction On-Site

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
lb/day																
Fugitive Dust					9.6314	0.0000	9.6314	3.7416	0.0000	3.7416			0.0000			0.0000
Off-Road	5.4030	56.9266	35.0872	0.0884	2.3715	2.3715	2.3715	2.1817	2.1817	2.1817	8,564.0894	8,564.0894	2.7698			8,633.3344
<b>Total</b>	<b>5.4030</b>	<b>56.9266</b>	<b>35.0872</b>	<b>0.0884</b>	<b>9.6314</b>	<b>2.3715</b>	<b>12.0029</b>	<b>3.7416</b>	<b>2.1817</b>	<b>6.9233</b>		<b>8,564.0894</b>	<b>8,564.0894</b>	<b>2.7698</b>		<b>8,633.3344</b>

Ocean KAMP Project - San Diego County, Winter

3.2 Grading - 2021

Unmitigated Construction Off-Site

Category	lb/day															
	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Hauling	6.5012	220.3501	56.8107	0.6458	14.8924	0.6608	15.5731	4.0814	0.6513	4.7326		70.8297635	70.8297635	6.5759		70.9941618
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0981	0.0631	0.6233	1.9200e-003	0.2054	1.4200e-003	0.2068	0.0545	1.3100e-003	0.0558		191.1369	191.1369	5.4900e-003		191.2742
<b>Total</b>	<b>6.5993</b>	<b>220.4132</b>	<b>57.4340</b>	<b>0.6478</b>	<b>15.0977</b>	<b>0.6822</b>	<b>15.7799</b>	<b>4.1358</b>	<b>0.6526</b>	<b>4.7884</b>		<b>71.020904</b>	<b>71.020904</b>	<b>6.5814</b>		<b>71.1854360</b>

Mitigated Construction On-Site

Category	lb/day															
	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Fugitive Dust					9.6314	0.0000	9.6314	3.7416	0.0000	3.7416			0.0000			0.0000
Off-Road	5.4030	56.9266	38.0872	0.0884		2.3715	2.3715	2.1817	2.1817	2.1817	0.0000	8.5640894	8.5640894	2.7698		8.6333344
<b>Total</b>	<b>5.4030</b>	<b>56.9266</b>	<b>38.0872</b>	<b>0.0884</b>	<b>9.6314</b>	<b>2.3715</b>	<b>12.0029</b>	<b>3.7416</b>	<b>2.1817</b>	<b>5.9233</b>	<b>0.0000</b>	<b>8.5640894</b>	<b>8.5640894</b>	<b>2.7698</b>		<b>8.6333344</b>

Ocean KAMP Project - San Diego County, Winter

**3.2 Grading - 2021**

**Mitigated Construction Off-Site**

Category	lb/day															
	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Hauling	6.5012	220.3501	56.8107	0.6458	14.8924	0.6608	15.5731	4.0814	0.6513	4.7326		70.82976 35	70.82976 35	6.5759		70.99416 18
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0981	0.0631	0.6233	1.9200e-003	0.2054	1.4200e-003	0.2068	0.0545	1.3100e-003	0.0558		191.1369	191.1369	5.4900e-003		191.2742
<b>Total</b>	<b>6.6993</b>	<b>220.4132</b>	<b>57.4340</b>	<b>0.6478</b>	<b>15.0977</b>	<b>0.6622</b>	<b>15.7799</b>	<b>4.1368</b>	<b>0.6626</b>	<b>4.7884</b>		<b>71.02090 04</b>	<b>71.02090 04</b>	<b>6.6814</b>		<b>71.18543 60</b>

**3.3 Underground Utilities - 2021**

**Unmitigated Construction On-Site**

Category	lb/day															
	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Off-Road	0.6792	6.9486	9.1822	0.0135		0.3688	0.3688		0.3393	0.3393		1,302.190 5	1,302.190 5	0.4212		1,312.719 4
<b>Total</b>	<b>0.6792</b>	<b>6.9486</b>	<b>9.1822</b>	<b>0.0135</b>		<b>0.3688</b>	<b>0.3688</b>		<b>0.3393</b>	<b>0.3393</b>		<b>1,302.190 5</b>	<b>1,302.190 5</b>	<b>0.4212</b>		<b>1,312.719 4</b>

Ocean KAMP Project - San Diego County, Winter

3.3 Underground Utilities - 2021

Unmitigated Construction Off-Site

Category	lb/day															
	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0319	1.0156	0.2890	2.6400e-003	0.0677	2.2300e-003	0.0699	0.0195	2.1300e-003	0.0216	283.8193	283.8193	0.0221	0.0221		284.3721
Worker	0.0392	0.0252	0.2493	7.7000e-004	0.0822	5.7000e-004	0.0827	0.0218	5.2000e-004	0.0223	76.4548	76.4548	2.2000e-003	2.2000e-003		76.5097
<b>Total</b>	<b>0.0711</b>	<b>1.0408</b>	<b>0.5383</b>	<b>3.4100e-003</b>	<b>0.1499</b>	<b>2.8000e-003</b>	<b>0.1626</b>	<b>0.0413</b>	<b>2.8500e-003</b>	<b>0.0439</b>	<b>360.2741</b>	<b>360.2741</b>	<b>0.0243</b>	<b>0.0243</b>		<b>360.8817</b>

Mitigated Construction On-Site

Category	lb/day															
	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Off-Road	0.6792	6.9486	9.1822	0.0135		0.3688	0.3688		0.3393	0.3393	0.0000	1,302.1905	1,302.1905	0.4212		1,312.7194
<b>Total</b>	<b>0.6792</b>	<b>6.9486</b>	<b>9.1822</b>	<b>0.0135</b>		<b>0.3688</b>	<b>0.3688</b>		<b>0.3393</b>	<b>0.3393</b>	<b>0.0000</b>	<b>1,302.1905</b>	<b>1,302.1905</b>	<b>0.4212</b>		<b>1,312.7194</b>

Ocean KAMP Project - San Diego County, Winter

**3.3 Underground Utilities - 2021**

**Mitigated Construction Off-Site**

Category	lb/day											CO2e				
	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2		NBio- CO2	Total CO2	CH4	N2O
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0319	1.0156	0.2890	2.6400e-003	0.0677	2.2300e-003	0.0699	0.0195	2.1300e-003	0.0216	283.8193	283.8193	0.0221	0.0221	284.3721	284.3721
Worker	0.0392	0.0252	0.2493	7.7000e-004	0.0822	5.7000e-004	0.0827	0.0218	5.2000e-004	0.0223	76.4548	76.4548	2.2000e-003	2.2000e-003	76.5097	76.5097
<b>Total</b>	<b>0.0711</b>	<b>1.0408</b>	<b>0.5383</b>	<b>3.4100e-003</b>	<b>0.1499</b>	<b>2.8000e-003</b>	<b>0.1526</b>	<b>0.0413</b>	<b>2.6600e-003</b>	<b>0.0439</b>	<b>360.2741</b>	<b>360.2741</b>	<b>0.0243</b>	<b>0.0243</b>	<b>360.8817</b>	<b>360.8817</b>

**3.4 Building Construction - 2021**

**Unmitigated Construction On-Site**

Category	lb/day											CO2e				
	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2		NBio- CO2	Total CO2	CH4	N2O
Off-Road	1.9009	17.4321	16.6752	0.0269	0.9586	0.9586	0.9586	0.9013	0.9013	0.9013	2,553.3639	2,553.3639	0.6160	0.6160	2,568.7643	2,568.7643
<b>Total</b>	<b>1.9009</b>	<b>17.4321</b>	<b>16.6752</b>	<b>0.0269</b>	<b>0.9586</b>	<b>0.9586</b>	<b>0.9586</b>	<b>0.9013</b>	<b>0.9013</b>	<b>0.9013</b>	<b>2,553.3639</b>	<b>2,553.3639</b>	<b>0.6160</b>	<b>0.6160</b>	<b>2,568.7643</b>	<b>2,568.7643</b>

Ocean KAMP Project - San Diego County, Winter

**3.4 Building Construction - 2021**  
**Unmitigated Construction Off-Site**

Category	lb/day															
	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.5555	49.5606	14.1005	0.1288	3.3036	0.1086	3.4122	0.9510	0.1038	1.0548	13,850.38	19	13,850.38	1.0790	13,877.35	65
Worker	6.0758	3.9073	38.6204	0.1188	12.7247	0.0879	12.8126	3.3752	0.0810	3.4562	11,842.84	19	11,842.84	0.3402	11,851.34	80
<b>Total</b>	<b>7.6313</b>	<b>53.4678</b>	<b>52.7209</b>	<b>0.2476</b>	<b>16.0282</b>	<b>0.1966</b>	<b>16.2247</b>	<b>4.3262</b>	<b>0.1848</b>	<b>4.5110</b>	<b>25,693.22</b>	<b>38</b>	<b>25,693.22</b>	<b>1.4192</b>	<b>25,728.70</b>	<b>45</b>

**Mitigated Construction On-Site**

Category	lb/day															
	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Off-Road	1.9009	17.4321	16.5752	0.0269	0.9586	0.9586	0.9586	0.9013	0.9013	0.9013	0.0000	2,553.363	9	2,553.363	0.6160	2,568.764
<b>Total</b>	<b>1.9009</b>	<b>17.4321</b>	<b>16.5752</b>	<b>0.0269</b>	<b>0.9586</b>	<b>0.9586</b>	<b>0.9586</b>	<b>0.9013</b>	<b>0.9013</b>	<b>0.9013</b>	<b>0.0000</b>	<b>2,553.363</b>	<b>9</b>	<b>2,553.363</b>	<b>0.6160</b>	<b>2,568.764</b>



Ocean KAMP Project - San Diego County, Winter

**3.4 Building Construction - 2022**

**Unmitigated Construction Off-Site**

Category	lb/day																
	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000
Vendor	1.4469	46.8027	13.3508	0.1274	3.3036	0.0936	3.3972	0.9510	0.0895	1.0405	13,717.80	78	13,717.80	1.0445			13,743.92
Worker	5.7578	3.5621	35.8361	0.1145	12.7247	0.0860	12.8107	3.3752	0.0792	3.4544	11,408.78	13	11,408.78	0.3115			11,416.56
<b>Total</b>	<b>7.2048</b>	<b>60.3648</b>	<b>49.1869</b>	<b>0.2418</b>	<b>16.0282</b>	<b>0.1796</b>	<b>16.2078</b>	<b>4.3262</b>	<b>0.1687</b>	<b>4.4949</b>	<b>25,126.58</b>	<b>91</b>	<b>25,126.58</b>	<b>1.3560</b>			<b>25,160.48</b>

**Mitigated Construction On-Site**

Category	lb/day																
	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Off-Road	1.7062	15.6156	16.3634	0.0269		0.8090	0.8090		0.7612	0.7612	0.0000	2,554.333	2,554.333	0.6120			2,569.632
<b>Total</b>	<b>1.7062</b>	<b>15.6156</b>	<b>16.3634</b>	<b>0.0269</b>		<b>0.8090</b>	<b>0.8090</b>		<b>0.7612</b>	<b>0.7612</b>	<b>0.0000</b>	<b>2,554.333</b>	<b>2,554.333</b>	<b>0.6120</b>			<b>2,569.632</b>

Ocean KAMP Project - San Diego County, Winter

**3.4 Building Construction - 2022**

**Mitigated Construction Off-Site**

Category	lb/day																
	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.4689	46.8027	13.3508	0.1274	3.3036	0.0936	3.3972	0.9510	0.0895	1.0405	13,717.80	78	13,717.80	1,0445	11	13,743.92	11
Worker	5.7578	3.5621	35.8361	0.1145	12.7247	0.0860	12.8107	3.3752	0.0792	3.4544	11,408.78	13	11,408.78	0.3115	13	11,416.56	88
<b>Total</b>	<b>7.2048</b>	<b>60.3648</b>	<b>49.1869</b>	<b>0.2418</b>	<b>16.0282</b>	<b>0.1796</b>	<b>16.2078</b>	<b>4.3262</b>	<b>0.1687</b>	<b>4.4949</b>	<b>25,126.68</b>	<b>91</b>	<b>25,126.68</b>	<b>1.3560</b>	<b>91</b>	<b>25,160.48</b>	<b>99</b>

**3.4 Building Construction - 2023**

**Unmitigated Construction On-Site**

Category	lb/day																
	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Off-Road	1.5728	14.3849	16.2440	0.0269	0.6997	0.6997	0.6997	0.6584	0.6584	0.6584	2,555.209	9	2,555.209	0.6079	9	2,570.406	1
<b>Total</b>	<b>1.5728</b>	<b>14.3849</b>	<b>16.2440</b>	<b>0.0269</b>	<b>0.6997</b>	<b>0.6997</b>	<b>0.6997</b>	<b>0.6584</b>	<b>0.6584</b>	<b>0.6584</b>	<b>2,555.209</b>	<b>9</b>	<b>2,555.209</b>	<b>0.6079</b>	<b>9</b>	<b>2,570.406</b>	<b>1</b>

Ocean KAMP Project - San Diego County, Winter

**3.4 Building Construction - 2023**

**Unmitigated Construction Off-Site**

Category	lb/day																
	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.1170	36.8055	12.0594	0.1239	3.3035	0.0460	3.3495	0.9510	0.0440	0.9950	13.37458	31	13.37458	0.9508	31	13.39835	25
Worker	5.4672	3.2520	33.2164	0.1101	12.7247	0.0843	12.8090	3.3752	0.0776	3.4528	10.97305	72	10.97305	0.2847	72	10.98017	48
<b>Total</b>	<b>6.5842</b>	<b>40.0576</b>	<b>45.2758</b>	<b>0.2340</b>	<b>16.0282</b>	<b>0.1303</b>	<b>16.1586</b>	<b>4.3262</b>	<b>0.1216</b>	<b>4.4478</b>	<b>24.34764</b>	<b>03</b>	<b>24.34764</b>	<b>1.2365</b>	<b>03</b>	<b>24.37652</b>	<b>73</b>

**Mitigated Construction On-Site**

Category	lb/day																
	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Off-Road	1.5728	14.3849	16.2440	0.0269	0.6997	0.6997	0.6997	0.6584	0.6584	0.6584	0.0000	2.555209	2.555209	0.6079	9	2.570406	1
<b>Total</b>	<b>1.5728</b>	<b>14.3849</b>	<b>16.2440</b>	<b>0.0269</b>	<b>0.6997</b>	<b>0.6997</b>	<b>0.6997</b>	<b>0.6584</b>	<b>0.6584</b>	<b>0.6584</b>	<b>0.0000</b>	<b>2.555209</b>	<b>2.555209</b>	<b>0.6079</b>	<b>9</b>	<b>2.570406</b>	<b>1</b>

Ocean KAMP Project - San Diego County, Winter

**3.4 Building Construction - 2023**

**Mitigated Construction Off-Site**

Category	lb/day																
	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000			0.0000
Vendor	1.1170	36.8055	12.0594	0.1239	3.3035	0.0460	3.3495	0.9510	0.0440	0.9950		13,374.58 31	13,374.58 31	0.9508			13,398.55 25
Worker	5.4672	3.2520	33.2164	0.1101	12.7247	0.0843	12.8090	3.3752	0.0776	3.4528		10,973.05 72	10,973.05 72	0.2847			10,980.17 48
<b>Total</b>	<b>6.5842</b>	<b>40.0675</b>	<b>45.2758</b>	<b>0.2340</b>	<b>16.0282</b>	<b>0.1303</b>	<b>16.1585</b>	<b>4.3262</b>	<b>0.1216</b>	<b>4.4478</b>		<b>24,347.64 03</b>	<b>24,347.64 03</b>	<b>1.2356</b>			<b>24,378.52 73</b>

**3.5 Paving - 2023**

**Unmitigated Construction On-Site**

Category	lb/day																
	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Off-Road	1.0327	10.1917	14.5842	0.0228		0.5102	0.5102		0.4694	0.4694		2,207.584 1	2,207.584 1	0.7140			2,225.433 6
Paving	2.4637					0.0000	0.0000		0.0000	0.0000			0.0000				0.0000
<b>Total</b>	<b>3.4964</b>	<b>10.1917</b>	<b>14.5842</b>	<b>0.0228</b>		<b>0.5102</b>	<b>0.5102</b>		<b>0.4694</b>	<b>0.4694</b>		<b>2,207.584 1</b>	<b>2,207.584 1</b>	<b>0.7140</b>			<b>2,225.433 6</b>

Ocean KAMP Project - San Diego County, Winter

**3.5 Paving - 2023**

**Unmitigated Construction Off-Site**

Category	lb/day															
	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Biogenic CO2	NBiogenic CO2	Total CO2	CH4	N2O	CO2e
Hauling	0.9749	30.8964	11.6891	0.1386	3.3256	0.0568	3.3844	0.9114	0.0563	0.9677		15,079.0353	15,079.0353	1.3831		15,113.6123
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0529	0.0315	0.3217	1.0700e-003	0.1232	8.2000e-004	0.1240	0.0327	7.5000e-004	0.0334		106.2594	106.2594	2.7600e-003		106.3284
<b>Total</b>	<b>1.0279</b>	<b>30.9279</b>	<b>12.0107</b>	<b>0.1377</b>	<b>3.4488</b>	<b>0.0597</b>	<b>3.5085</b>	<b>0.9441</b>	<b>0.0670</b>	<b>1.0011</b>		<b>15,185.2947</b>	<b>15,185.2947</b>	<b>1.3858</b>		<b>15,219.9406</b>

**Mitigated Construction On-Site**

Category	lb/day															
	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Biogenic CO2	NBiogenic CO2	Total CO2	CH4	N2O	CO2e
Off-Road	1.0327	10.1917	14.5842	0.0228		0.5102	0.5102		0.4694	0.4694		2,207.5841	2,207.5841	0.7140		2,225.4336
Paving	2.4637					0.0000	0.0000		0.0000	0.0000		0.0000	0.0000			0.0000
<b>Total</b>	<b>3.4964</b>	<b>10.1917</b>	<b>14.5842</b>	<b>0.0228</b>		<b>0.5102</b>	<b>0.5102</b>		<b>0.4694</b>	<b>0.4694</b>		<b>2,207.5841</b>	<b>2,207.5841</b>	<b>0.7140</b>		<b>2,225.4336</b>

Ocean KAMP Project - San Diego County, Winter

**3.5 Paving - 2023**

**Mitigated Construction Off-Site**

Category	lb/day															
	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Hauling	0.9749	30.8964	11.6891	0.1366	3.3256	0.0588	3.3844	0.9114	0.0563	0.9677		15,079.03 53	15,079.03 53	1.3831		15,113.61 23
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0529	0.0315	0.3217	1.0700e-003	0.1232	8.2000e-004	0.1240	0.0327	7.5000e-004	0.0334		106.2594	106.2594	2.7600e-003		106.3284
<b>Total</b>	<b>1.0279</b>	<b>30.9279</b>	<b>12.0107</b>	<b>0.1377</b>	<b>3.4488</b>	<b>0.0597</b>	<b>3.5085</b>	<b>0.9441</b>	<b>0.0670</b>	<b>1.0011</b>		<b>16,185.29 47</b>	<b>16,185.29 47</b>	<b>1.3868</b>		<b>16,219.94 06</b>

**3.6 Architectural Coating - 2023**

**Unmitigated Construction On-Site**

Category	lb/day															
	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Archit. Coating	1,192.834 4					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1917	1.3030	1.8111	2.9700e-003	0.0708	0.0708	0.0708	0.0708	0.0708	0.0708		281.4481	281.4481	0.0168		281.8690
<b>Total</b>	<b>1,193.026 1</b>	<b>1.3030</b>	<b>1.8111</b>	<b>2.9700e-003</b>	<b>0.0708</b>	<b>0.0708</b>	<b>0.0708</b>	<b>0.0708</b>	<b>0.0708</b>	<b>0.0708</b>		<b>281.4481</b>	<b>281.4481</b>	<b>0.0168</b>		<b>281.8690</b>

Ocean KAMP Project - San Diego County, Winter

**3.6 Architectural Coating - 2023**  
**Unmitigated Construction Off-Site**

Category	lb/day											CO2e				
	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2		NBio- CO2	Total CO2	CH4	N2O
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.0942	0.6508	6.6476	0.0220	2.5466	0.0169	2.5635	0.6755	0.0155	0.6910	2.196.028	2.196.028	0.0570	0.0570	2.197.452	7
<b>Total</b>	<b>1.0942</b>	<b>0.6508</b>	<b>6.6476</b>	<b>0.0220</b>	<b>2.5466</b>	<b>0.0169</b>	<b>2.5635</b>	<b>0.6755</b>	<b>0.0155</b>	<b>0.6910</b>	<b>2.196.028</b>	<b>2.196.028</b>	<b>0.0570</b>	<b>0.0570</b>	<b>2.197.452</b>	<b>7</b>

**Mitigated Construction On-Site**

Category	lb/day											CO2e				
	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2		NBio- CO2	Total CO2	CH4	N2O
Archit. Coating	1.192.834					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1917	1.3030	1.8111	2.9700e-003	0.0708	0.0708	0.0708	0.0708	0.0708	0.0708	0.0000	281.4481	281.4481	0.0168		281.8680
<b>Total</b>	<b>1,193.026</b>	<b>1.3030</b>	<b>1.8111</b>	<b>2.9700e-003</b>	<b>0.0708</b>	<b>0.0708</b>	<b>0.0708</b>	<b>0.0708</b>	<b>0.0708</b>	<b>0.0708</b>	<b>0.0000</b>	<b>281.4481</b>	<b>281.4481</b>	<b>0.0168</b>		<b>281.8690</b>

Ocean KAMP Project - San Diego County, Winter

**3.6 Architectural Coating - 2023**

**Mitigated Construction Off-Site**

Category	lb/day																
	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio-CO2	NIbio-CO2	Total CO2	CH4	N2O	CO2e	
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.0942	0.6508	6.6476	0.0220	2.5466	0.0169	2.5635	0.6755	0.0155	0.6910	2.196.028	2.196.028	0.0570	0.0570	0.0570	2.197.452	7
<b>Total</b>	<b>1.0942</b>	<b>0.6508</b>	<b>6.6476</b>	<b>0.0220</b>	<b>2.5466</b>	<b>0.0169</b>	<b>2.5635</b>	<b>0.6755</b>	<b>0.0155</b>	<b>0.6910</b>	<b>2.196.028</b>	<b>2.196.028</b>	<b>0.0570</b>	<b>0.0570</b>	<b>0.0570</b>	<b>2.197.452</b>	<b>7</b>

**4.0 Operational Detail - Mobile**

**4.1 Mitigation Measures Mobile**

Ocean KAMP Project - San Diego County, Winter

Category	lb/day																
	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Biogenic CO2	NBiogenic CO2	Total CO2	CH4	N2O	CO2e	
Mitigated	23.4098	89.0925	246.3028	0.8351	1,083.3588	0.6753	1,084.0341	121.1771	0.6283	121.8055		85,159.8477	85,159.8477	4,5441			85,273.4501
Unmitigated	23.4098	89.0925	246.3028	0.8351	1,083.3588	0.6753	1,084.0341	121.1771	0.6283	121.8055		85,159.8477	85,159.8477	4,5441			85,273.4501

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated Annual VMT	Mitigated Annual VMT
	Weekday	Saturday	Sunday		
City Park	0.00	0.00	0.00		
Condo/Townhouse	5,600.00	5,698.00	5,698.00	9,013,805	9,013,805
Hotel	3,000.00	2,457.00	1785.00	7,604,438	7,604,438
Other Asphalt Surfaces	0.00	0.00	0.00		
Parking Lot	0.00	0.00	0.00		
Recreational Swimming Pool	360.20	459.91	459.91	1,075,258	1,075,258
Strip Mall	10,080.40	5,810.61	5,810.61	16,771,078	16,771,078
<b>Total</b>	<b>19,040.60</b>	<b>14,425.52</b>	<b>13,753.52</b>	<b>34,464,579</b>	<b>34,464,579</b>

4.3 Trip Type Information

Ocean KAMP Project - San Diego County, Winter

Land Use	Miles					Trip %					Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by	
City Park	9.50	7.30	7.30	33.00	48.00	19.00	66	28	6				
Condo/Townhouse	4.40	7.30	7.50	100.00	0.00	0.00	100	0	0				
Hotel	9.50	7.60	7.30	0.00	100.00	0.00	100	0	0				
Other Asphalt Surfaces	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0				
Parking Lot	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0				
Recreational Swimming Pool	9.50	7.60	7.30	0.00	100.00	0.00	100	0	0				
Strip Mall	9.50	5.20	7.30	0.00	100.00	0.00	100	0	0				

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
City Park	0.606234	0.039465	0.179154	0.102641	0.014368	0.005395	0.016820	0.024508	0.001929	0.001857	0.005869	0.000761	0.000998
Condo/Townhouse	0.606234	0.039465	0.179154	0.102641	0.014368	0.005395	0.016820	0.024508	0.001929	0.001857	0.005869	0.000761	0.000998
Hotel	0.606234	0.039465	0.179154	0.102641	0.014368	0.005395	0.016820	0.024508	0.001929	0.001857	0.005869	0.000761	0.000998
Other Asphalt Surfaces	0.606234	0.039465	0.179154	0.102641	0.014368	0.005395	0.016820	0.024508	0.001929	0.001857	0.005869	0.000761	0.000998
Parking Lot	0.606234	0.039465	0.179154	0.102641	0.014368	0.005395	0.016820	0.024508	0.001929	0.001857	0.005869	0.000761	0.000998
Recreational Swimming Pool	0.606234	0.039465	0.179154	0.102641	0.014368	0.005395	0.016820	0.024508	0.001929	0.001857	0.005869	0.000761	0.000998
Strip Mall	0.606234	0.039465	0.179154	0.102641	0.014368	0.005395	0.016820	0.024508	0.001929	0.001857	0.005869	0.000761	0.000998

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Ocean KAMP Project - San Diego County, Winter

Category	lb/day											lb/day					
	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Natural Gas Mitigated	1.1441	10.2389	7.5471	0.0624	0.7905	0.7905	0.7905	0.7905	0.7905	0.7905	12,481.39	37	12,481.39	0.2392	0.2288	12,555.56	44
Natural Gas Unmitigated	1.1441	10.2389	7.5471	0.0624	0.7905	0.7905	0.7905	0.7905	0.7905	0.7905	12,481.39	37	12,481.39	0.2392	0.2288	12,555.56	44

Ocean KAMP Project - San Diego County, Winter

5.2 Energy by Land Use - NaturalGas

Unmitigated

Land Use	NaturalGas Use kBtu/yr	ROG	NOx	CO	SO2	PM10			Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
						Fugitive PM10	Exhaust PM10	PM10 Total									
lb/day																	
City Park	0	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Condo/Townhouse	27583.5	0.2975	2.5420	1.0817	0.0162	0.2055	0.2055	0.2055	0.2055	0.2055	0.2055	3.2451233	3.2451233	0.0622	0.0595	0.0595	3.2644074
Hotel	77736	0.8383	7.6212	6.4018	0.0457	0.5792	0.5792	0.5792	0.5792	0.5792	0.5792	9.1454172	9.1454172	0.1753	0.1677	0.1677	9.1997639
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Recreational Swimming Pool	0	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Strip Mall	772.252	8.3300e-003	0.0757	0.0636	4.5000e-004	5.7500e-003	5.7500e-003	5.7500e-003	5.7500e-003	5.7500e-003	5.7500e-003	90.8532	90.8532	1.7400e-003	1.6700e-003	1.6700e-003	91.3931
<b>Total</b>		<b>1.1441</b>	<b>10.2389</b>	<b>7.5471</b>	<b>0.0624</b>	<b>0.7905</b>	<b>0.7905</b>	<b>0.7905</b>	<b>0.7905</b>	<b>0.7905</b>	<b>0.7905</b>	<b>12.4813937</b>	<b>12.4813937</b>	<b>0.2392</b>	<b>0.2288</b>	<b>0.2288</b>	<b>12.555.5644</b>

Ocean KAMP Project - San Diego County, Winter

5.2 Energy by Land Use - NaturalGas

Mitigated

Land Use	NaturalGas Use kBtu/yr	lb/day																
		ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio-CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e	
City Park	0	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
CondorTownhouse	27.5835	0.2975	2.5420	1.0817	0.0162	0.2055	0.2055	0.2055	0.2055	0.2055	0.2055	3.2451233	3.2451233	0.0622	0.0595	3.2644074		
Hotel	77.736	0.8383	7.6212	6.4018	0.0457	0.5792	0.5792	0.5792	0.5792	0.5792	0.5792	9.1454172	9.1454172	0.1753	0.1677	9.1997639		
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Recreational Swimming Pool	0	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Strip Mall	0.77252	8.3300e-003	0.0757	0.0636	4.5000e-004	5.7500e-003	5.7500e-003	5.7500e-003	5.7500e-003	5.7500e-003	5.7500e-003	90.8532	90.8532	1.7400e-003	1.6700e-003	91.3931		
<b>Total</b>		<b>1.1441</b>	<b>10.2389</b>	<b>7.5471</b>	<b>0.0624</b>	<b>0.7905</b>	<b>0.7905</b>	<b>0.7905</b>	<b>0.7905</b>	<b>0.7905</b>	<b>0.7905</b>	<b>12.4813937</b>	<b>12.4813937</b>	<b>0.2392</b>	<b>0.2288</b>	<b>12.6666644</b>		

6.0 Area Detail

6.1 Mitigation Measures Area

Ocean KAMP Project - San Diego County, Winter

Category	lb/day															
	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Mitigated	40.4325	0.6657	57.7948	3.0500e-003		0.3202	0.3202		0.3202	0.3202	0.0000	104.1330	104.1330	0.1002	0.0000	106.6369
Unmitigated	40.4325	0.6657	57.7948	3.0500e-003		0.3202	0.3202		0.3202	0.3202	0.0000	104.1330	104.1330	0.1002	0.0000	106.6369

6.2 Area by SubCategory

Unmitigated

SubCategory	lb/day															
	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Architectural Coating	10.1309					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	28.5596					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	1.7420	0.6657	57.7948	3.0500e-003		0.3202	0.3202		0.3202	0.3202		104.1330	104.1330	0.1002		106.6369
<b>Total</b>	<b>40.4325</b>	<b>0.6657</b>	<b>57.7948</b>	<b>3.0500e-003</b>		<b>0.3202</b>	<b>0.3202</b>		<b>0.3202</b>	<b>0.3202</b>	<b>0.0000</b>	<b>104.1330</b>	<b>104.1330</b>	<b>0.1002</b>	<b>0.0000</b>	<b>106.6369</b>

Ocean KAMP Project - San Diego County, Winter

**6.2 Area by SubCategory**

**Mitigated**

SubCategory	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	BiO-CO2	NBiO-CO2	Total CO2	CH4	N2O	CO2e
lb/day																
Architectural Coating	10.1309					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	28.5596					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	1.7420	0.6657	57.7948	3.0500e-003		0.3202	0.3202		0.3202	0.3202		104.1330	104.1330	0.1002		106.6389
<b>Total</b>	<b>40.4325</b>	<b>0.6657</b>	<b>57.7948</b>	<b>3.0500e-003</b>		<b>0.3202</b>	<b>0.3202</b>		<b>0.3202</b>	<b>0.3202</b>	<b>0.0000</b>	<b>104.1330</b>	<b>104.1330</b>	<b>0.1002</b>	<b>0.0000</b>	<b>106.6389</b>

**7.0 Water Detail**

**7.1 Mitigation Measures Water**

**8.0 Waste Detail**

**8.1 Mitigation Measures Waste**

**9.0 Operational Offroad**

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
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**10.0 Stationary Equipment**

Ocean KAMP Project - San Diego County, Winter

**Fire Pumps and Emergency Generators**

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
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**Boilers**

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type
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**User Defined Equipment**

Equipment Type	Number
----------------	--------

**11.0 Vegetation**

---

Construction		Total	
<b>2021</b>			
Annual Emissions (tons/year)	0.1837	Total DPM (lbs)	590.8421918
Daily Emissions (lbs/day)	1.006575342	Total DPM (g)	240790.0182
Construction Duration (days)	184	Total Construction Days	791
Total DPM (lbs)	185.209863	Emission Rate (g/s)	0.008523289
Total DPM (g)	84011.19386	Release Height (meters)	3
Start Date	7/1/2021	Total Acreage	92
End Date	1/1/2022	Max Horizontal (meters)	862.91
Construction Days	184	Min Horizontal (meters)	431.46
<b>2022</b>			
Annual Emissions (tons/year)	0.1213	Initial Vertical Dimension (meters)	1.5
Daily Emissions (lbs/day)	0.664657534	Setting	Urban
Construction Duration (days)	365	Population	175,622
Total DPM (lbs)	242.6	Start Date	7/1/2021
Total DPM (g)	110043.36	End Date	8/31/2023
Start Date	1/1/2022	Total Construction Days	791
End Date	1/1/2023	Total Years of Construction	2.17
Construction Days	365	Total Years of Operation	27.83
<b>2023</b>			
Annual Emissions (tons/year)	0.0777		
Daily Emissions (lbs/day)	0.425753425		
Construction Duration (days)	242		
Total DPM (lbs)	103.0323288		
Total DPM (g)	46735.46433		
Start Date	1/1/2023		
End Date	8/31/2023		
Construction Days	242		

Operation	
Annual Emissions (tons/year)	0.18
Daily Emissions (lbs/day)	0.98630137
Emission Rate (g/s)	0.005178082
Release Height (meters)	3
Total Acreage	92
Max Horizontal (meters)	862.91
Min Horizontal (meters)	431.46
Initial Vertical Dimension (meters)	1.5
Setting	Urban
Population	175,622
<b>Total Pounds of DPM</b>	
Total DPM (lbs)	360

Start date and time 09/27/21 13:36:49

AERSCREEN 16216

Ocean KAMP Construction

Ocean KAMP Construction

----- DATA ENTRY VALIDATION -----

METRIC ENGLISH

\*\* AREADATA \*\* -----

Emission Rate:	0.352E-02 g/s	0.280E-01 lb/hr
Area Height:	3.00 meters	9.84 feet
Area Source Length:	862.91 meters	2831.07 feet
Area Source Width:	431.46 meters	1415.55 feet
Vertical Dimension:	1.50 meters	4.92 feet
Model Mode:	URBAN	
Population:	175622	
Dist to Ambient Air:	1.0 meters	3. feet

\*\* BUILDING DATA \*\*

No Building Downwash Parameters

**\*\* TERRAIN DATA \*\***

No Terrain Elevations

Source Base Elevation: 0.0 meters 0.0 feet

Probe distance: 5000. meters 16404. feet

No flagpole receptors

No discrete receptors used

**\*\* FUMIGATION DATA \*\***

No fumigation requested

**\*\* METEOROLOGY DATA \*\***

Min/Max Temperature: 250.0 / 310.0 K -9.7 / 98.3 Deg F

Minimum Wind Speed: 0.5 m/s

Anemometer Height: 10.000 meters

Dominant Surface Profile: Urban

Dominant Climate Type: Average Moisture

Surface friction velocity ( $u^*$ ): not adjusted

DEBUG OPTION ON

AERSCREEN output file:

2021.09.27\_OceanKAMP\_Construction.out

\*\*\* AERSCREEN Run is Ready to Begin

No terrain used, AERMAP will not be run

\*\*\*\*\*

SURFACE CHARACTERISTICS & MAKEMET

Obtaining surface characteristics...

Using AERMET seasonal surface characteristics for Urban with Average Moisture

Season	Albedo	Bo	zo
Winter	0.35	1.50	1.000
Spring	0.14	1.00	1.000
Summer	0.16	2.00	1.000
Autumn	0.18	2.00	1.000

Creating met files aerscreen\_01\_01.sfc & aerscreen\_01\_01.pfl

Creating met files aerscreen\_02\_01.sfc & aerscreen\_02\_01.pfl

Creating met files aerscreen\_03\_01.sfc & aerscreen\_03\_01.pfl

Creating met files aerscreen\_04\_01.sfc & aerscreen\_04\_01.pfl

Buildings and/or terrain present on rectangular area source, skipping probe

FLOWSECTOR started 09/27/21 13:39:50

\*\*\*\*\*

Running AERMOD

Processing Winter

Processing surface roughness sector 1

\*\*\*\*\*

Processing wind flow sector 1

AERMOD Finishes Successfully for FLOWSECTOR stage 2 Winter sector 0

\*\*\*\*\* WARNING MESSAGES \*\*\*\*\*

\*\*\* NONE \*\*\*

\*\*\*\*\*

Processing wind flow sector 2

AERMOD Finishes Successfully for FLOWSECTOR stage 2 Winter sector 5

\*\*\*\*\* WARNING MESSAGES \*\*\*\*\*

\*\*\* NONE \*\*\*

\*\*\*\*\*

Processing wind flow sector 3

AERMOD Finishes Successfully for FLOWSECTOR stage 2 Winter sector 10

\*\*\*\*\* WARNING MESSAGES \*\*\*\*\*

\*\*\* NONE \*\*\*

\*\*\*\*\*

Processing wind flow sector 4

AERMOD Finishes Successfully for FLOWSECTOR stage 2 Winter sector 15

\*\*\*\*\* WARNING MESSAGES \*\*\*\*\*

\*\*\* NONE \*\*\*

\*\*\*\*\*

Processing wind flow sector 5

AERMOD Finishes Successfully for FLOWSECTOR stage 2 Winter sector 20

\*\*\*\*\* WARNING MESSAGES \*\*\*\*\*

\*\*\* NONE \*\*\*

\*\*\*\*\*

Processing wind flow sector 6

AERMOD Finishes Successfully for FLOWSECTOR stage 2 Winter sector 25

\*\*\*\*\* WARNING MESSAGES \*\*\*\*\*

\*\*\* NONE \*\*\*

\*\*\*\*\*

Processing wind flow sector 7

AERMOD Finishes Successfully for FLOWSECTOR stage 2 Winter sector 30

\*\*\*\*\* WARNING MESSAGES \*\*\*\*\*

\*\*\* NONE \*\*\*

\*\*\*\*\*

Running AERMOD

Processing Spring

Processing surface roughness sector 1

\*\*\*\*\*

Processing wind flow sector 1

AERMOD Finishes Successfully for FLOWSECTOR stage 2 Spring sector 0

\*\*\*\*\* WARNING MESSAGES \*\*\*\*\*

\*\*\* NONE \*\*\*

\*\*\*\*\*

Processing wind flow sector 2

AERMOD Finishes Successfully for FLOWSECTOR stage 2 Spring sector 5

\*\*\*\*\* WARNING MESSAGES \*\*\*\*\*

\*\*\* NONE \*\*\*

\*\*\*\*\*

Processing wind flow sector 3

AERMOD Finishes Successfully for FLOWSECTOR stage 2 Spring sector 10

\*\*\*\*\* WARNING MESSAGES \*\*\*\*\*

\*\*\* NONE \*\*\*

\*\*\*\*\*

Processing wind flow sector 4

AERMOD Finishes Successfully for FLOWSECTOR stage 2 Spring sector 15

\*\*\*\*\* WARNING MESSAGES \*\*\*\*\*

\*\*\* NONE \*\*\*

\*\*\*\*\*

Processing wind flow sector 5

AERMOD Finishes Successfully for FLOWSECTOR stage 2 Spring sector 20

\*\*\*\*\* WARNING MESSAGES \*\*\*\*\*

\*\*\* NONE \*\*\*

\*\*\*\*\*

Processing wind flow sector 6

AERMOD Finishes Successfully for FLOWSECTOR stage 2 Spring sector 25

\*\*\*\*\* WARNING MESSAGES \*\*\*\*\*

\*\*\* NONE \*\*\*

\*\*\*\*\*

Processing wind flow sector 7

AERMOD Finishes Successfully for FLOWSECTOR stage 2 Spring sector 30

\*\*\*\*\* WARNING MESSAGES \*\*\*\*\*

\*\*\* NONE \*\*\*

\*\*\*\*\*

Running AERMOD

Processing Summer

Processing surface roughness sector 1

\*\*\*\*\*

Processing wind flow sector 1

AERMOD Finishes Successfully for FLOWSECTOR stage 2 Summer sector 0

\*\*\*\*\* WARNING MESSAGES \*\*\*\*\*

\*\*\* NONE \*\*\*

\*\*\*\*\*

Processing wind flow sector 2

AERMOD Finishes Successfully for FLOWSECTOR stage 2 Summer sector 5

\*\*\*\*\* WARNING MESSAGES \*\*\*\*\*

\*\*\* NONE \*\*\*

\*\*\*\*\*

Processing wind flow sector 3

AERMOD Finishes Successfully for FLOWSECTOR stage 2 Summer sector 10

\*\*\*\*\* WARNING MESSAGES \*\*\*\*\*

\*\*\* NONE \*\*\*

\*\*\*\*\*

Processing wind flow sector 4

AERMOD Finishes Successfully for FLOWSECTOR stage 2 Summer sector 15

\*\*\*\*\* WARNING MESSAGES \*\*\*\*\*

\*\*\* NONE \*\*\*

\*\*\*\*\*

Processing wind flow sector 5

AERMOD Finishes Successfully for FLOWSECTOR stage 2 Summer sector 20

\*\*\*\*\* WARNING MESSAGES \*\*\*\*\*

\*\*\* NONE \*\*\*

\*\*\*\*\*

Processing wind flow sector 6

AERMOD Finishes Successfully for FLOWSECTOR stage 2 Summer sector 25

\*\*\*\*\* WARNING MESSAGES \*\*\*\*\*

\*\*\* NONE \*\*\*

\*\*\*\*\*

Processing wind flow sector 7

AERMOD Finishes Successfully for FLOWSECTOR stage 2 Summer sector 30

\*\*\*\*\* WARNING MESSAGES \*\*\*\*\*

\*\*\* NONE \*\*\*

\*\*\*\*\*

Running AERMOD

Processing Autumn

Processing surface roughness sector 1

\*\*\*\*\*

Processing wind flow sector 1

AERMOD Finishes Successfully for FLOWSECTOR stage 2 Autumn sector 0

\*\*\*\*\* WARNING MESSAGES \*\*\*\*\*

\*\*\* NONE \*\*\*

\*\*\*\*\*

Processing wind flow sector 2

AERMOD Finishes Successfully for FLOWSECTOR stage 2 Autumn sector 5

\*\*\*\*\* WARNING MESSAGES \*\*\*\*\*

\*\*\* NONE \*\*\*

\*\*\*\*\*

Processing wind flow sector 3

AERMOD Finishes Successfully for FLOWSECTOR stage 2 Autumn sector 10

\*\*\*\*\* WARNING MESSAGES \*\*\*\*\*

\*\*\* NONE \*\*\*

\*\*\*\*\*

Processing wind flow sector 4

AERMOD Finishes Successfully for FLOWSECTOR stage 2 Autumn sector 15

\*\*\*\*\* WARNING MESSAGES \*\*\*\*\*

\*\*\* NONE \*\*\*

\*\*\*\*\*

Processing wind flow sector 5

AERMOD Finishes Successfully for FLOWSECTOR stage 2 Autumn sector 20

\*\*\*\*\* WARNING MESSAGES \*\*\*\*\*

\*\*\* NONE \*\*\*

\*\*\*\*\*

Processing wind flow sector 6

AERMOD Finishes Successfully for FLOWSECTOR stage 2 Autumn sector 25

\*\*\*\*\* WARNING MESSAGES \*\*\*\*\*

\*\*\* NONE \*\*\*

\*\*\*\*\*

Processing wind flow sector 7

AERMOD Finishes Successfully for FLOWSECTOR stage 2 Autumn sector 30

\*\*\*\*\* WARNING MESSAGES \*\*\*\*\*

\*\*\* NONE \*\*\*

FLOWSECTOR ended 09/27/21 13:40:19

REFINE started 09/27/21 13:40:19

AERMOD Finishes Successfully for REFINE stage 3 Winter sector 0

\*\*\*\*\* WARNING MESSAGES \*\*\*\*\*

\*\*\* NONE \*\*\*

REFINE ended 09/27/21 13:40:21

\*\*\*\*\*

AERSCREEN Finished Successfully

With no errors or warnings

Check log file for details

\*\*\*\*\*

Ending date and time 09/27/21 13:40:22

Concentration	Distance	Elevation	Diag	Season/Month	Zo sector	Date	H0	U*	W*	DT/DZ	ZICNV
ZIMCH M-O L E N	Z0 BOWEN	ALBEDO	REF WS	HT REF TA	HT	HT					
0.46202E+00	0.99	0.00	10.0	Winter	0-360	10011001	-1.30	0.043	-9.000	0.020 -999.	21. 6.0
1.000 1.50 0.35	0.50	10.0	310.0	2.0							
0.47191E+00	25.00	0.00	10.0	Winter	0-360	10011001	-1.30	0.043	-9.000	0.020 -999.	21. 6.0
1.000 1.50 0.35	0.50	10.0	310.0	2.0							
0.48180E+00	50.00	0.00	10.0	Winter	0-360	10011001	-1.30	0.043	-9.000	0.020 -999.	21. 6.0
1.000 1.50 0.35	0.50	10.0	310.0	2.0							
0.49128E+00	75.00	0.00	10.0	Winter	0-360	10011001	-1.30	0.043	-9.000	0.020 -999.	21. 6.0
1.000 1.50 0.35	0.50	10.0	310.0	2.0							
0.50051E+00	100.00	0.00	0.0	Winter	0-360	10011001	-1.30	0.043	-9.000	0.020 -999.	21. 6.0
1.000 1.50 0.35	0.50	10.0	310.0	2.0							
0.50952E+00	125.00	0.00	0.0	Winter	0-360	10011001	-1.30	0.043	-9.000	0.020 -999.	21. 6.0
1.000 1.50 0.35	0.50	10.0	310.0	2.0							
0.51821E+00	150.00	0.00	0.0	Winter	0-360	10011001	-1.30	0.043	-9.000	0.020 -999.	21. 6.0
1.000 1.50 0.35	0.50	10.0	310.0	2.0							
0.52660E+00	175.00	0.00	0.0	Winter	0-360	10011001	-1.30	0.043	-9.000	0.020 -999.	21. 6.0
1.000 1.50 0.35	0.50	10.0	310.0	2.0							
0.53471E+00	200.00	0.00	0.0	Winter	0-360	10011001	-1.30	0.043	-9.000	0.020 -999.	21. 6.0
1.000 1.50 0.35	0.50	10.0	310.0	2.0							
0.54255E+00	225.00	0.00	0.0	Winter	0-360	10011001	-1.30	0.043	-9.000	0.020 -999.	21. 6.0
1.000 1.50 0.35	0.50	10.0	310.0	2.0							
0.55013E+00	250.00	0.00	0.0	Winter	0-360	10011001	-1.30	0.043	-9.000	0.020 -999.	21. 6.0
1.000 1.50 0.35	0.50	10.0	310.0	2.0							
0.55747E+00	275.00	0.00	0.0	Winter	0-360	10011001	-1.30	0.043	-9.000	0.020 -999.	21. 6.0
1.000 1.50 0.35	0.50	10.0	310.0	2.0							
0.56459E+00	300.00	0.00	0.0	Winter	0-360	10011001	-1.30	0.043	-9.000	0.020 -999.	21. 6.0
1.000 1.50 0.35	0.50	10.0	310.0	2.0							
0.57150E+00	325.00	0.00	0.0	Winter	0-360	10011001	-1.30	0.043	-9.000	0.020 -999.	21. 6.0
1.000 1.50 0.35	0.50	10.0	310.0	2.0							
0.57821E+00	350.00	0.00	0.0	Winter	0-360	10011001	-1.30	0.043	-9.000	0.020 -999.	21. 6.0
1.000 1.50 0.35	0.50	10.0	310.0	2.0							
0.58470E+00	375.00	0.00	0.0	Winter	0-360	10011001	-1.30	0.043	-9.000	0.020 -999.	21. 6.0
1.000 1.50 0.35	0.50	10.0	310.0	2.0							
0.59100E+00	400.00	0.00	0.0	Winter	0-360	10011001	-1.30	0.043	-9.000	0.020 -999.	21. 6.0
1.000 1.50 0.35	0.50	10.0	310.0	2.0							
0.59711E+00	425.00	0.00	0.0	Winter	0-360	10011001	-1.30	0.043	-9.000	0.020 -999.	21. 6.0
1.000 1.50 0.35	0.50	10.0	310.0	2.0							
* 0.59878E+00	432.00	0.00	0.0	Winter	0-360	10011001	-1.30	0.043	-9.000	0.020 -999.	21. 6.0
1.000 1.50 0.35	0.50	10.0	310.0	2.0							
0.59698E+00	450.00	0.00	20.0	Winter	0-360	10011001	-1.30	0.043	-9.000	0.020 -999.	21. 6.0
1.000 1.50 0.35	0.50	10.0	310.0	2.0							
0.59623E+00	475.00	0.00	25.0	Winter	0-360	10011001	-1.30	0.043	-9.000	0.020 -999.	21. 6.0
1.000 1.50 0.35	0.50	10.0	310.0	2.0							
0.49509E+00	500.00	0.00	25.0	Winter	0-360	10011001	-1.30	0.043	-9.000	0.020 -999.	21. 6.0
1.000 1.50 0.35	0.50	10.0	310.0	2.0							
0.42611E+00	525.00	0.00	25.0	Winter	0-360	10011001	-1.30	0.043	-9.000	0.020 -999.	21. 6.0
1.000 1.50 0.35	0.50	10.0	310.0	2.0							
0.38579E+00	550.00	0.00	25.0	Winter	0-360	10011001	-1.30	0.043	-9.000	0.020 -999.	21. 6.0
1.000 1.50 0.35	0.50	10.0	310.0	2.0							
0.35755E+00	575.00	0.00	20.0	Winter	0-360	10011001	-1.30	0.043	-9.000	0.020 -999.	21. 6.0
1.000 1.50 0.35	0.50	10.0	310.0	2.0							
0.33724E+00	600.00	0.00	20.0	Winter	0-360	10011001	-1.30	0.043	-9.000	0.020 -999.	21. 6.0



1.000	1.50	0.35	0.50	10.0	310.0	2.0								
0.14477E+00			1300.00		0.00	0.0	Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999. 21. 6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0								
0.14170E+00			1325.00		0.00	0.0	Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999. 21. 6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0								
0.13874E+00			1350.00		0.00	0.0	Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999. 21. 6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0								
0.13584E+00			1375.00		0.00	0.0	Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999. 21. 6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0								
0.13305E+00			1400.00		0.00	0.0	Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999. 21. 6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0								
0.13037E+00			1425.00		0.00	0.0	Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999. 21. 6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0								
0.12780E+00			1450.00		0.00	0.0	Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999. 21. 6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0								
0.12534E+00			1475.00		0.00	0.0	Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999. 21. 6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0								
0.12291E+00			1500.00		0.00	0.0	Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999. 21. 6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0								
0.12056E+00			1525.00		0.00	0.0	Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999. 21. 6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0								
0.11829E+00			1550.00		0.00	0.0	Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999. 21. 6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0								
0.11608E+00			1575.00		0.00	0.0	Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999. 21. 6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0								
0.11395E+00			1600.00		0.00	0.0	Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999. 21. 6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0								
0.11191E+00			1625.00		0.00	0.0	Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999. 21. 6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0								
0.10988E+00			1650.00		0.00	0.0	Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999. 21. 6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0								
0.10792E+00			1675.00		0.00	0.0	Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999. 21. 6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0								
0.10603E+00			1700.00		0.00	0.0	Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999. 21. 6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0								
0.10420E+00			1725.00		0.00	0.0	Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999. 21. 6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0								
0.10244E+00			1750.00		0.00	0.0	Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999. 21. 6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0								
0.10073E+00			1775.00		0.00	0.0	Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999. 21. 6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0								
0.99078E-01			1800.00		0.00	0.0	Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999. 21. 6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0								
0.97452E-01			1825.00		0.00	0.0	Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999. 21. 6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0								
0.95841E-01			1850.00		0.00	0.0	Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999. 21. 6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0								
0.94278E-01			1875.00		0.00	0.0	Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999. 21. 6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0								
0.92764E-01			1900.00		0.00	0.0	Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999. 21. 6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0								
0.91297E-01			1925.00		0.00	0.0	Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999. 21. 6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0								
0.89874E-01			1950.00		0.00	0.0	Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999. 21. 6.0



1.000	1.50	0.35	0.50	10.0	310.0	2.0								
0.61411E-01			2650.00	0.00	0.0	Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21. 6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0								
0.60695E-01			2675.00	0.00	0.0	Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21. 6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0								
0.59995E-01			2700.00	0.00	0.0	Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21. 6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0								
0.59301E-01			2725.00	0.00	0.0	Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21. 6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0								
0.58608E-01			2750.00	0.00	0.0	Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21. 6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0								
0.57929E-01			2775.00	0.00	0.0	Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21. 6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0								
0.57265E-01			2800.00	0.00	0.0	Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21. 6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0								
0.56615E-01			2825.00	0.00	0.0	Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21. 6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0								
0.55978E-01			2850.00	0.00	0.0	Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21. 6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0								
0.55354E-01			2875.00	0.00	0.0	Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21. 6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0								
0.54743E-01			2900.00	0.00	0.0	Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21. 6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0								
0.54145E-01			2925.00	0.00	0.0	Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21. 6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0								
0.53558E-01			2950.00	0.00	0.0	Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21. 6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0								
0.52983E-01			2975.00	0.00	0.0	Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21. 6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0								
0.52419E-01			3000.00	0.00	0.0	Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21. 6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0								
0.51866E-01			3025.00	0.00	0.0	Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21. 6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0								
0.51324E-01			3050.00	0.00	0.0	Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21. 6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0								
0.50793E-01			3075.00	0.00	0.0	Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21. 6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0								
0.50271E-01			3100.00	0.00	0.0	Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21. 6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0								
0.49759E-01			3125.00	0.00	0.0	Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21. 6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0								
0.49257E-01			3150.00	0.00	0.0	Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21. 6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0								
0.48764E-01			3175.00	0.00	0.0	Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21. 6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0								
0.48280E-01			3200.00	0.00	0.0	Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21. 6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0								
0.47805E-01			3225.00	0.00	0.0	Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21. 6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0								
0.47330E-01			3250.00	0.00	0.0	Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21. 6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0								
0.46863E-01			3275.00	0.00	0.0	Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21. 6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0								
0.46405E-01			3300.00	0.00	0.0	Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21. 6.0



1.000	1.50	0.35	0.50	10.0	310.0	2.0													
0.36156E-01			4000.00		0.00	0.0	Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.				6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0													
0.35861E-01			4025.00		0.00	0.0	Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.				6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0													
0.35570E-01			4050.00		0.00	0.0	Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.				6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0													
0.35283E-01			4075.00		0.00	0.0	Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.				6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0													
0.35001E-01			4100.00		0.00	0.0	Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.				6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0													
0.34723E-01			4125.00		0.00	0.0	Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.				6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0													
0.34449E-01			4150.00		0.00	0.0	Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.				6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0													
0.34178E-01			4175.00		0.00	0.0	Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.				6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0													
0.33911E-01			4200.00		0.00	0.0	Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.				6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0													
0.33648E-01			4225.00		0.00	0.0	Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.				6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0													
0.33389E-01			4250.00		0.00	0.0	Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.				6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0													
0.33133E-01			4275.00		0.00	0.0	Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.				6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0													
0.32881E-01			4300.00		0.00	0.0	Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.				6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0													
0.32632E-01			4325.00		0.00	0.0	Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.				6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0													
0.32387E-01			4350.00		0.00	0.0	Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.				6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0													
0.32145E-01			4375.00		0.00	0.0	Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.				6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0													
0.31906E-01			4400.00		0.00	0.0	Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.				6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0													
0.31670E-01			4425.00		0.00	0.0	Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.				6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0													
0.31438E-01			4450.00		0.00	0.0	Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.				6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0													
0.31208E-01			4475.00		0.00	0.0	Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.				6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0													
0.30982E-01			4500.00		0.00	0.0	Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.				6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0													
0.30758E-01			4525.00		0.00	0.0	Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.				6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0													
0.30537E-01			4550.00		0.00	0.0	Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.				6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0													
0.30318E-01			4575.00		0.00	0.0	Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.				6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0													
0.30101E-01			4600.00		0.00	0.0	Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.				6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0													
0.29887E-01			4625.00		0.00	0.0	Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.				6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0													
0.29675E-01			4650.00		0.00	0.0	Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.				6.0

1.000	1.50	0.35	0.50	10.0	310.0	2.0	0.29466E-01	4675.00	0.00	0.0	Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.	6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0	0.29259E-01	4700.00	0.00	0.0	Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.	6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0	0.29055E-01	4725.00	0.00	0.0	Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.	6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0	0.28854E-01	4750.00	0.00	0.0	Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.	6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0	0.28655E-01	4775.00	0.00	0.0	Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.	6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0	0.28458E-01	4800.00	0.00	0.0	Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.	6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0	0.28264E-01	4825.00	0.00	0.0	Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.	6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0	0.28073E-01	4850.00	0.00	0.0	Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.	6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0	0.27883E-01	4875.00	0.00	0.0	Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.	6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0	0.27696E-01	4900.00	0.00	0.0	Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.	6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0	0.27511E-01	4925.00	0.00	0.0	Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.	6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0	0.27329E-01	4950.00	0.00	0.0	Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.	6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0	0.27148E-01	4975.00	0.00	0.0	Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.	6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0	0.26970E-01	5000.00	0.00	0.0	Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.	6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0														

Start date and time 09/27/21 13:41:17

AERSCREEN 16216

Ocean KAMP Operation

Ocean KAMP Operation

----- DATA ENTRY VALIDATION -----

METRIC

ENGLISH

\*\* AREADATA \*\*

Emission Rate:	0.518E-02 g/s	0.411E-01 lb/hr
Area Height:	3.00 meters	9.84 feet
Area Source Length:	862.91 meters	2831.07 feet
Area Source Width:	431.46 meters	1415.55 feet
Vertical Dimension:	1.50 meters	4.92 feet
Model Mode:	URBAN	
Population:	175622	
Dist to Ambient Air:	1.0 meters	3. feet

\*\* BUILDING DATA \*\*

No Building Downwash Parameters

\*\* TERRAIN DATA \*\*

No Terrain Elevations

Source Base Elevation: 0.0 meters 0.0 feet

Probe distance: 5000. meters 16404. feet

No flagpole receptors

No discrete receptors used

\*\* FUMIGATION DATA \*\*

No fumigation requested

\*\* METEOROLOGY DATA \*\*

Min/Max Temperature: 250.0 / 310.0 K -9.7 / 98.3 Deg F

Minimum Wind Speed: 0.5 m/s

Anemometer Height: 10.000 meters

Dominant Surface Profile: Urban

Dominant Climate Type: Average Moisture

Surface friction velocity (u\*): not adjusted

DEBUG OPTION ON

AERSCREEN output file:

2021.09.27\_OceanKAMP\_Operation.out

\*\*\* AERSCREEN Run is Ready to Begin

No terrain used, AERMAP will not be run

\*\*\*\*\*

SURFACE CHARACTERISTICS & MAKEMET

Obtaining surface characteristics...

Using AERMET seasonal surface characteristics for Urban with Average Moisture

Season	Albedo	Bo	zo
Winter	0.35	1.50	1.000
Spring	0.14	1.00	1.000
Summer	0.16	2.00	1.000
Autumn	0.18	2.00	1.000

Creating met files aerscreen\_01\_01.sfc & aerscreen\_01\_01.pfl

Creating met files aerscreen\_02\_01.sfc & aerscreen\_02\_01.pfl

Creating met files aerscreen\_03\_01.sfc & aerscreen\_03\_01.pfl

Creating met files aerscreen\_04\_01.sfc & aerscreen\_04\_01.pfl

Buildings and/or terrain present or rectangular area source, skipping probe

FLOWSECTOR started 09/27/21 13:42:58

\*\*\*\*\*

Running AERMOD

Processing Winter

Processing surface roughness sector 1

\*\*\*\*\*

Processing wind flow sector 1

AERMOD Finishes Successfully for FLOWSECTOR stage 2 Winter sector 0

\*\*\*\*\* WARNING MESSAGES \*\*\*\*\*

\*\*\* NONE \*\*\*

\*\*\*\*\*

Processing wind flow sector 2

AERMOD Finishes Successfully for FLOWSECTOR stage 2 Winter sector 5

\*\*\*\*\* WARNING MESSAGES \*\*\*\*\*

\*\*\* NONE \*\*\*

\*\*\*\*\*

Processing wind flow sector 3

AERMOD Finishes Successfully for FLOWSECTOR stage 2 Winter sector 10

\*\*\*\*\* WARNING MESSAGES \*\*\*\*\*

\*\*\* NONE \*\*\*

\*\*\*\*\*

Processing wind flow sector 4

AERMOD Finishes Successfully for FLOWSECTOR stage 2 Winter sector 15

\*\*\*\*\* WARNING MESSAGES \*\*\*\*\*

\*\*\* NONE \*\*\*

\*\*\*\*\*

Processing wind flow sector 5

AERMOD Finishes Successfully for FLOWSECTOR stage 2 Winter sector 20

\*\*\*\*\* WARNING MESSAGES \*\*\*\*\*

\*\*\* NONE \*\*\*

\*\*\*\*\*

Processing wind flow sector 6

AERMOD Finishes Successfully for FLOWSECTOR stage 2 Winter sector 25

\*\*\*\*\* WARNING MESSAGES \*\*\*\*\*

\*\*\* NONE \*\*\*

\*\*\*\*\*

Processing wind flow sector 7

AERMOD Finishes Successfully for FLOWSECTOR stage 2 Winter sector 30

\*\*\*\*\* WARNING MESSAGES \*\*\*\*\*

\*\*\* NONE \*\*\*

\*\*\*\*\*

Running AERMOD

Processing Spring

Processing surface roughness sector 1

\*\*\*\*\*

Processing wind flow sector 1

AERMOD Finishes Successfully for FLOWSECTOR stage 2 Spring sector 0

\*\*\*\*\* WARNING MESSAGES \*\*\*\*\*

\*\*\* NONE \*\*\*

\*\*\*\*\*

Processing wind flow sector 2

AERMOD Finishes Successfully for FLOWSECTOR stage 2 Spring sector 5

\*\*\*\*\* WARNING MESSAGES \*\*\*\*\*

\*\*\* NONE \*\*\*

\*\*\*\*\*

Processing wind flow sector 3

AERMOD Finishes Successfully for FLOWSECTOR stage 2 Spring sector 10

\*\*\*\*\* WARNING MESSAGES \*\*\*\*\*

\*\*\* NONE \*\*\*

\*\*\*\*\*

Processing wind flow sector 4

AERMOD Finishes Successfully for FLOWSECTOR stage 2 Spring sector 15

\*\*\*\*\* WARNING MESSAGES \*\*\*\*\*

\*\*\* NONE \*\*\*

\*\*\*\*\*

Processing wind flow sector 5

AERMOD Finishes Successfully for FLOWSECTOR stage 2 Spring sector 20

\*\*\*\*\* WARNING MESSAGES \*\*\*\*\*

\*\*\* NONE \*\*\*

\*\*\*\*\*

Processing wind flow sector 6

AERMOD Finishes Successfully for FLOWSECTOR stage 2 Spring sector 25

\*\*\*\*\* WARNING MESSAGES \*\*\*\*\*

\*\*\* NONE \*\*\*

\*\*\*\*\*

Processing wind flow sector 7

AERMOD Finishes Successfully for FLOWSECTOR stage 2 Spring sector 30

\*\*\*\*\* WARNING MESSAGES \*\*\*\*\*

\*\*\* NONE \*\*\*

\*\*\*\*\*

Running AERMOD

Processing Summer

Processing surface roughness sector 1

\*\*\*\*\*

Processing wind flow sector 1

AERMOD Finishes Successfully for FLOWSECTOR stage 2 Summer sector 0

\*\*\*\*\* WARNING MESSAGES \*\*\*\*\*

\*\*\* NONE \*\*\*

\*\*\*\*\*

Processing wind flow sector 2

AERMOD Finishes Successfully for FLOWSECTOR stage 2 Summer sector 5

\*\*\*\*\* WARNING MESSAGES \*\*\*\*\*

\*\*\* NONE \*\*\*

\*\*\*\*\*

Processing wind flow sector 3

AERMOD Finishes Successfully for FLOWSECTOR stage 2 Summer sector 10

\*\*\*\*\* WARNING MESSAGES \*\*\*\*\*

\*\*\* NONE \*\*\*

\*\*\*\*\*

Processing wind flow sector 4

AERMOD Finishes Successfully for FLOWSECTOR stage 2 Summer sector 15

\*\*\*\*\* WARNING MESSAGES \*\*\*\*\*

\*\*\* NONE \*\*\*

\*\*\*\*\*

Processing wind flow sector 5

AERMOD Finishes Successfully for FLOWSECTOR stage 2 Summer sector 20

\*\*\*\*\* WARNING MESSAGES \*\*\*\*\*

\*\*\* NONE \*\*\*

\*\*\*\*\*

Processing wind flow sector 6

AERMOD Finishes Successfully for FLOWSECTOR stage 2 Summer sector 25

\*\*\*\*\* WARNING MESSAGES \*\*\*\*\*

\*\*\* NONE \*\*\*

\*\*\*\*\*

Processing wind flow sector 7

AERMOD Finishes Successfully for FLOWSECTOR stage 2 Summer sector 30

\*\*\*\*\* WARNING MESSAGES \*\*\*\*\*

\*\*\* NONE \*\*\*

\*\*\*\*\*

Running AERMOD

Processing Autumn

Processing surface roughness sector 1

\*\*\*\*\*

Processing wind flow sector 1

AERMOD Finishes Successfully for FLOWSECTOR stage 2 Autumn sector 0

\*\*\*\*\* WARNING MESSAGES \*\*\*\*\*

\*\*\* NONE \*\*\*

\*\*\*\*\*

Processing wind flow sector 2

AERMOD Finishes Successfully for FLOWSECTOR stage 2 Autumn sector 5

\*\*\*\*\* WARNING MESSAGES \*\*\*\*\*

\*\*\* NONE \*\*\*

\*\*\*\*\*

Processing wind flow sector 3

AERMOD Finishes Successfully for FLOWSECTOR stage 2 Autumn sector 10

\*\*\*\*\* WARNING MESSAGES \*\*\*\*\*

\*\*\* NONE \*\*\*

\*\*\*\*\*

Processing wind flow sector 4

AERMOD Finishes Successfully for FLOWSECTOR stage 2 Autumn sector 15

\*\*\*\*\* WARNING MESSAGES \*\*\*\*\*

\*\*\* NONE \*\*\*

\*\*\*\*\*

Processing wind flow sector 5

AERMOD Finishes Successfully for FLOWSECTOR stage 2 Autumn sector 20

\*\*\*\*\* WARNING MESSAGES \*\*\*\*\*

\*\*\* NONE \*\*\*

\*\*\*\*\*

Processing wind flow sector 6

AERMOD Finishes Successfully for FLOWSECTOR stage 2 Autumn sector 25

\*\*\*\*\* WARNING MESSAGES \*\*\*\*\*

\*\*\* NONE \*\*\*

\*\*\*\*\*

Processing wind flow sector 7

AERMOD Finishes Successfully for FLOWSECTOR stage 2 Autumn sector 30

\*\*\*\*\* WARNING MESSAGES \*\*\*\*\*

\*\*\* NONE \*\*\*

FLOWSECTOR ended 09/27/21 13:43:27

REFINE started 09/27/21 13:43:27

AERMOD Finishes Successfully for REFINE stage 3 Winter sector 0

\*\*\*\*\* WARNING MESSAGES \*\*\*\*\*

\*\*\* NONE \*\*\*

REFINE ended 09/27/21 13:43:28

\*\*\*\*\*

AERSCREEN Finished Successfully

With no errors or warnings

Check log file for details

\*\*\*\*\*

Ending date and time 09/27/21 13:43:30

Concentration	Distance	Elevation	Diag	Season/Month	Zo sector	Date	H0	U*	W*	DT/DZ	ZICNV
ZIMCH M-O LEN	Z0 BOWEN	ALBEDO	REF WS	HT REF TA	HT	HT					
0.67914E+00	0.99	0.00	10.0	Winter	0-360	10011001	-1.30	0.043	-9.000	0.020 -999.	21. 6.0
1.000 1.50 0.35	0.50	10.0	310.0	2.0							
0.69368E+00	25.00	0.00	10.0	Winter	0-360	10011001	-1.30	0.043	-9.000	0.020 -999.	21. 6.0
1.000 1.50 0.35	0.50	10.0	310.0	2.0							
0.70821E+00	50.00	0.00	10.0	Winter	0-360	10011001	-1.30	0.043	-9.000	0.020 -999.	21. 6.0
1.000 1.50 0.35	0.50	10.0	310.0	2.0							
0.72215E+00	75.00	0.00	10.0	Winter	0-360	10011001	-1.30	0.043	-9.000	0.020 -999.	21. 6.0
1.000 1.50 0.35	0.50	10.0	310.0	2.0							
0.73572E+00	100.00	0.00	0.0	Winter	0-360	10011001	-1.30	0.043	-9.000	0.020 -999.	21. 6.0
1.000 1.50 0.35	0.50	10.0	310.0	2.0							
0.74896E+00	125.00	0.00	0.0	Winter	0-360	10011001	-1.30	0.043	-9.000	0.020 -999.	21. 6.0
1.000 1.50 0.35	0.50	10.0	310.0	2.0							
0.76174E+00	150.00	0.00	0.0	Winter	0-360	10011001	-1.30	0.043	-9.000	0.020 -999.	21. 6.0
1.000 1.50 0.35	0.50	10.0	310.0	2.0							
0.77407E+00	175.00	0.00	0.0	Winter	0-360	10011001	-1.30	0.043	-9.000	0.020 -999.	21. 6.0
1.000 1.50 0.35	0.50	10.0	310.0	2.0							
0.78599E+00	200.00	0.00	0.0	Winter	0-360	10011001	-1.30	0.043	-9.000	0.020 -999.	21. 6.0
1.000 1.50 0.35	0.50	10.0	310.0	2.0							
0.79751E+00	225.00	0.00	0.0	Winter	0-360	10011001	-1.30	0.043	-9.000	0.020 -999.	21. 6.0
1.000 1.50 0.35	0.50	10.0	310.0	2.0							
0.80865E+00	250.00	0.00	0.0	Winter	0-360	10011001	-1.30	0.043	-9.000	0.020 -999.	21. 6.0
1.000 1.50 0.35	0.50	10.0	310.0	2.0							
0.81945E+00	275.00	0.00	0.0	Winter	0-360	10011001	-1.30	0.043	-9.000	0.020 -999.	21. 6.0
1.000 1.50 0.35	0.50	10.0	310.0	2.0							
0.82991E+00	300.00	0.00	0.0	Winter	0-360	10011001	-1.30	0.043	-9.000	0.020 -999.	21. 6.0
1.000 1.50 0.35	0.50	10.0	310.0	2.0							
0.84007E+00	325.00	0.00	0.0	Winter	0-360	10011001	-1.30	0.043	-9.000	0.020 -999.	21. 6.0
1.000 1.50 0.35	0.50	10.0	310.0	2.0							
0.84992E+00	350.00	0.00	0.0	Winter	0-360	10011001	-1.30	0.043	-9.000	0.020 -999.	21. 6.0
1.000 1.50 0.35	0.50	10.0	310.0	2.0							
0.85947E+00	375.00	0.00	0.0	Winter	0-360	10011001	-1.30	0.043	-9.000	0.020 -999.	21. 6.0
1.000 1.50 0.35	0.50	10.0	310.0	2.0							
0.86874E+00	400.00	0.00	0.0	Winter	0-360	10011001	-1.30	0.043	-9.000	0.020 -999.	21. 6.0
1.000 1.50 0.35	0.50	10.0	310.0	2.0							
0.87771E+00	425.00	0.00	0.0	Winter	0-360	10011001	-1.30	0.043	-9.000	0.020 -999.	21. 6.0
1.000 1.50 0.35	0.50	10.0	310.0	2.0							
* 0.88017E+00	432.00	0.00	0.0	Winter	0-360	10011001	-1.30	0.043	-9.000	0.020 -999.	21. 6.0
1.000 1.50 0.35	0.50	10.0	310.0	2.0							
0.87752E+00	450.00	0.00	20.0	Winter	0-360	10011001	-1.30	0.043	-9.000	0.020 -999.	21. 6.0
1.000 1.50 0.35	0.50	10.0	310.0	2.0							
0.87643E+00	475.00	0.00	25.0	Winter	0-360	10011001	-1.30	0.043	-9.000	0.020 -999.	21. 6.0
1.000 1.50 0.35	0.50	10.0	310.0	2.0							
0.72775E+00	500.00	0.00	25.0	Winter	0-360	10011001	-1.30	0.043	-9.000	0.020 -999.	21. 6.0
1.000 1.50 0.35	0.50	10.0	310.0	2.0							
0.62636E+00	525.00	0.00	25.0	Winter	0-360	10011001	-1.30	0.043	-9.000	0.020 -999.	21. 6.0
1.000 1.50 0.35	0.50	10.0	310.0	2.0							
0.56708E+00	550.00	0.00	25.0	Winter	0-360	10011001	-1.30	0.043	-9.000	0.020 -999.	21. 6.0
1.000 1.50 0.35	0.50	10.0	310.0	2.0							
0.52557E+00	575.00	0.00	20.0	Winter	0-360	10011001	-1.30	0.043	-9.000	0.020 -999.	21. 6.0
1.000 1.50 0.35	0.50	10.0	310.0	2.0							
0.49572E+00	600.00	0.00	20.0	Winter	0-360	10011001	-1.30	0.043	-9.000	0.020 -999.	21. 6.0

1.000	1.50	0.35	0.50	10.0	310.0	2.0	0.46963E+00	625.00	0.00	20.0	Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.	6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0	0.44867E+00	650.00	0.00	20.0	Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.	6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0	0.42827E+00	675.00	0.00	20.0	Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.	6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0	0.40984E+00	699.99	0.00	20.0	Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.	6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0	0.39303E+00	725.00	0.00	20.0	Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.	6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0	0.37913E+00	750.00	0.00	0.0	Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.	6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0	0.36698E+00	775.00	0.00	0.0	Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.	6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0	0.35558E+00	800.00	0.00	0.0	Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.	6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0	0.34483E+00	825.00	0.00	0.0	Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.	6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0	0.33464E+00	850.00	0.00	0.0	Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.	6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0	0.32497E+00	875.00	0.00	0.0	Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.	6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0	0.31576E+00	900.00	0.00	0.0	Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.	6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0	0.30702E+00	925.00	0.00	0.0	Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.	6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0	0.29870E+00	950.00	0.00	0.0	Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.	6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0	0.29079E+00	975.00	0.00	0.0	Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.	6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0	0.28314E+00	1000.00	0.00	0.0	Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.	6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0	0.27589E+00	1025.00	0.00	0.0	Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.	6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0	0.26885E+00	1050.00	0.00	0.0	Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.	6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0	0.26221E+00	1075.00	0.00	0.0	Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.	6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0	0.25583E+00	1100.00	0.00	0.0	Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.	6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0	0.24970E+00	1125.00	0.00	0.0	Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.	6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0	0.24381E+00	1150.00	0.00	0.0	Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.	6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0	0.23812E+00	1175.00	0.00	0.0	Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.	6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0	0.23262E+00	1200.00	0.00	0.0	Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.	6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0	0.22738E+00	1225.00	0.00	0.0	Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.	6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0	0.22240E+00	1250.00	0.00	0.0	Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.	6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0	0.21749E+00	1275.00	0.00	0.0	Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.	6.0

1.000	1.50	0.35	0.50	10.0	310.0	2.0	0.21280E+00	1300.00	0.00	0.0	Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.	6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0	0.20829E+00	1325.00	0.00	0.0	Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.	6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0	0.20394E+00	1350.00	0.00	0.0	Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.	6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0	0.19968E+00	1375.00	0.00	0.0	Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.	6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0	0.19557E+00	1400.00	0.00	0.0	Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.	6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0	0.19164E+00	1425.00	0.00	0.0	Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.	6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0	0.18787E+00	1450.00	0.00	0.0	Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.	6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0	0.18424E+00	1475.00	0.00	0.0	Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.	6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0	0.18067E+00	1500.00	0.00	0.0	Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.	6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0	0.17721E+00	1525.00	0.00	0.0	Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.	6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0	0.17387E+00	1550.00	0.00	0.0	Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.	6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0	0.17063E+00	1575.00	0.00	0.0	Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.	6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0	0.16751E+00	1600.00	0.00	0.0	Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.	6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0	0.16450E+00	1625.00	0.00	0.0	Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.	6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0	0.16152E+00	1650.00	0.00	0.0	Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.	6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0	0.15863E+00	1675.00	0.00	0.0	Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.	6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0	0.15585E+00	1700.00	0.00	0.0	Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.	6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0	0.15317E+00	1725.00	0.00	0.0	Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.	6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0	0.15057E+00	1750.00	0.00	0.0	Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.	6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0	0.14806E+00	1775.00	0.00	0.0	Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.	6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0	0.14564E+00	1800.00	0.00	0.0	Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.	6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0	0.14325E+00	1825.00	0.00	0.0	Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.	6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0	0.14088E+00	1850.00	0.00	0.0	Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.	6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0	0.13858E+00	1875.00	0.00	0.0	Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.	6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0	0.13636E+00	1900.00	0.00	0.0	Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.	6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0	0.13420E+00	1925.00	0.00	0.0	Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.	6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0	0.13211E+00	1950.00	0.00	0.0	Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.	6.0



1.000	1.50	0.35	0.50	10.0	310.0	2.0								
0.90269E-01			2650.00	0.00	0.0		Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999. 21. 6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0								
0.89218E-01			2675.00	0.00	0.0		Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999. 21. 6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0								
0.88190E-01			2700.00	0.00	0.0		Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999. 21. 6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0								
0.87168E-01			2725.00	0.00	0.0		Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999. 21. 6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0								
0.86150E-01			2750.00	0.00	0.0		Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999. 21. 6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0								
0.85152E-01			2775.00	0.00	0.0		Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999. 21. 6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0								
0.84176E-01			2800.00	0.00	0.0		Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999. 21. 6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0								
0.83220E-01			2825.00	0.00	0.0		Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999. 21. 6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0								
0.82284E-01			2850.00	0.00	0.0		Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999. 21. 6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0								
0.81367E-01			2875.00	0.00	0.0		Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999. 21. 6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0								
0.80469E-01			2900.00	0.00	0.0		Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999. 21. 6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0								
0.79589E-01			2925.00	0.00	0.0		Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999. 21. 6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0								
0.78727E-01			2950.00	0.00	0.0		Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999. 21. 6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0								
0.77881E-01			2975.00	0.00	0.0		Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999. 21. 6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0								
0.77053E-01			3000.00	0.00	0.0		Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999. 21. 6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0								
0.76240E-01			3025.00	0.00	0.0		Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999. 21. 6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0								
0.75443E-01			3050.00	0.00	0.0		Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999. 21. 6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0								
0.74662E-01			3075.00	0.00	0.0		Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999. 21. 6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0								
0.73895E-01			3100.00	0.00	0.0		Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999. 21. 6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0								
0.73143E-01			3125.00	0.00	0.0		Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999. 21. 6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0								
0.72405E-01			3150.00	0.00	0.0		Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999. 21. 6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0								
0.71680E-01			3175.00	0.00	0.0		Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999. 21. 6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0								
0.70969E-01			3200.00	0.00	0.0		Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999. 21. 6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0								
0.70270E-01			3225.00	0.00	0.0		Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999. 21. 6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0								
0.69572E-01			3250.00	0.00	0.0		Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999. 21. 6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0								
0.68886E-01			3275.00	0.00	0.0		Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999. 21. 6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0								
0.68212E-01			3300.00	0.00	0.0		Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999. 21. 6.0





1.000	1.50	0.35	0.50	10.0	310.0	2.0									
0.43313E-01			4675.00	0.00	0.0		Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21. 6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0									
0.43009E-01			4700.00	0.00	0.0		Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21. 6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0									
0.42709E-01			4725.00	0.00	0.0		Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21. 6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0									
0.42413E-01			4750.00	0.00	0.0		Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21. 6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0									
0.42121E-01			4775.00	0.00	0.0		Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21. 6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0									
0.41832E-01			4800.00	0.00	0.0		Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21. 6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0									
0.41547E-01			4825.00	0.00	0.0		Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21. 6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0									
0.41265E-01			4850.00	0.00	0.0		Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21. 6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0									
0.40987E-01			4875.00	0.00	0.0		Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21. 6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0									
0.40711E-01			4900.00	0.00	0.0		Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21. 6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0									
0.40440E-01			4925.00	0.00	0.0		Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21. 6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0									
0.40171E-01			4950.00	0.00	0.0		Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21. 6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0									
0.39906E-01			4975.00	0.00	0.0		Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21. 6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0									
0.39644E-01			5000.00	0.00	0.0		Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21. 6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0									



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**Matthew F. Hagemann, P.G.,\* C.Hg\*\***

**Geologic and Hydrogeologic  
Characterization, Investigation  
and Remediation Strategies  
Expert Testimony  
Industrial Stormwater Compliance  
CEQA Review**

**Professional Certifications:**

\*Professional Geologist

\*\*Certified Hydrogeologist

**Education:**

M.S. Degree, Geology, California State University Los Angeles, Los Angeles, CA, 1984.

B.A. Degree, Geology, Humboldt State University, Arcata, CA, 1982.

**Professional Certifications:**

California Professional Geologist

California Certified Hydrogeologist

**Professional Experience:**

30 years of experience in environmental policy, contaminant assessment and remediation, stormwater compliance, and CEQA review. Spent nine years with the U.S. EPA in the Resource Conservation Recovery Act (RCRA) and

Superfund programs and served as EPA's Senior Science Policy Advisor in the Western Regional Office where he identified emerging threats to groundwater. While with EPA, served as a Senior Hydrogeologist in the oversight of the assessment of seven major military facilities undergoing base closure. Led numerous enforcement actions under provisions of the Resource Conservation and Recovery Act (RCRA) and directed efforts to improve hydrogeologic characterization and water quality monitoring. For the past 15 years, as a founding partner with SWAPE, developed extensive client relationships and has managed complex projects that include consultations as an expert witness and a regulatory specialist, and managing projects ranging from industrial stormwater compliance to CEQA review of impacts from hazardous waste, air quality and greenhouse gas emissions.

Positions held include:

**Government:**

- Senior Science Policy Advisor and Hydrogeologist, U.S. Environmental Protection Agency (1989–1998);
- Hydrogeologist, National Park Service, Water Resources Division (1998 – 2000);
- Geologist, U.S. Forest Service (1986 – 1998)

**Educational:**

- Geology Instructor, Golden West College, 2010 – 2104, 2017;
- Adjunct Faculty Member, San Francisco State University, Department of Geosciences (1993 – 1998);
- Instructor, College of Marin, Department of Science (1990 – 1995);

**Private Sector:**

- Founding Partner, Soil/Water/Air Protection Enterprise (SWAPE) (2003 – present);
- Senior Environmental Analyst, Komex H2O Science, Inc. (2000 -- 2003);
- Executive Director, Orange Coast Watch (2001 – 2004);
- Geologist, Dames & Moore (1984 – 1986).

**Senior Regulatory and Litigation Support Analyst:**

With SWAPE, responsibilities have included:

- Lead analyst and testifying expert, for both plaintiffs and defendants, in the review of over 300 environmental impact reports and negative declarations since 2003 under CEQA that identify significant issues with regard to

hazardous waste, water resources, water quality, air quality, greenhouse gas emissions, and geologic hazards.

- Recommending additional mitigation measures to lead agencies at the local and county level to include additional characterization of health risks and implementation of protective measures to reduce exposure to hazards from toxins.
- Stormwater analysis, sampling and best management practice evaluation, for both government agencies and corporate clients, at more than 150 industrial facilities.
- Serving as expert witness for both plaintiffs and defendants in cases including contamination of groundwater, CERCLA compliance in assessment and remediation, and industrial stormwater contamination.
- Technical assistance and litigation support for vapor intrusion concerns, for both government agencies and corporate clients.
- Lead analyst and testifying expert in the review of environmental issues in license applications for large solar power plants before the California Energy Commission.
- Manager of a project to evaluate numerous formerly used military sites in the western U.S.
- Manager of a comprehensive evaluation of potential sources of perchlorate contamination in Southern California drinking water wells.
- Manager and designated expert for litigation support under provisions of Proposition 65 in the review of releases of gasoline to sources drinking water at major refineries and hundreds of gas stations throughout California.

With Komex H2O Science Inc., duties included the following:

- Senior author of a report on the extent of perchlorate contamination that was used in testimony by the former U.S. EPA Administrator and General Counsel.
- Senior researcher in the development of a comprehensive, electronically interactive chronology of MTBE use, research, and regulation.
- Senior researcher in the development of a comprehensive, electronically interactive chronology of perchlorate use, research, and regulation.
- Senior researcher in a study that estimates nationwide costs for MTBE remediation and drinking water treatment, results of which were published in newspapers nationwide and in testimony against provisions of an energy bill that would limit liability for oil companies.
- Research to support litigation to restore drinking water supplies that have been contaminated by MTBE in California and New York.
- Lead author for a multi-volume remedial investigation report for an

operating school in Los Angeles that met strict regulatory requirements and rigorous deadlines.

- Development of strategic approaches for cleanup of contaminated sites in consultation with clients and regulators.

**Executive Director:**

As Executive Director with Orange Coast Watch, an Orange County-based not-for-profit water-quality organization, led efforts to restore water quality at Orange County beaches from multiple sources of contamination including urban runoff and the discharge of wastewater. In reporting to a Board of Directors that included representatives from leading Orange County universities and businesses, prepared issue papers in the areas of treatment and disinfection of wastewater and control of the discharge of grease to sewer systems. Actively participated in the development of countywide water quality permits for the control of urban runoff and permits for the discharge of wastewater. Worked with other nonprofits to protect and restore water quality, including Surfrider, Natural Resources Defense Council and Orange County CoastKeeper as well as with business institutions including the Orange County Business Council.

**Hydrogeology:**

As a Senior Hydrogeologist with the U.S. Environmental Protection Agency, led investigations to characterize and cleanup closing military bases, including Mare Island Naval Shipyard, Hunters Point Naval Shipyard, Treasure Island Naval Station, Alameda Naval Station, Moffett Field, Mather Army Airfield, and Sacramento Army Depot. Specific activities included:

- Leading efforts to model groundwater flow and contaminant transport, ensured adequacy of monitoring networks, and assessed cleanup alternatives for contaminated sediment, soil, and groundwater.
- Initiating a regional program for evaluation of groundwater sampling practices and laboratory analysis at military bases.
- Identifying emerging issues, wrote technical guidance, and assisted in policy and regulation development through work on four national U.S. EPA workgroups, including the Superfund Groundwater Technical Forum and the Federal Facilities Forum.

At the request of the State of Hawaii, developed a methodology to determine the vulnerability of groundwater to contamination on the islands of Maui and Oahu. Used

analytical models and a GIS to show zones of vulnerability, and the results were adopted and published by the State of Hawaii and County of Maui.

As a hydrogeologist with the EPA Groundwater Protection Section, worked with provisions of the Safe Drinking Water Act and NEPA to prevent drinking water contamination. Specific activities included the following:

- Received an EPA Bronze Medal for contribution to the development of national guidance for the protection of drinking water.
- Managed the Sole Source Aquifer Program and protected the drinking water of two communities through designation under the Safe Drinking Water Act. Prepared geologic reports, conducted hearings, and responded to public comments from residents who were very concerned about the impact of designation.
- Reviewed a number of Environmental Impact Statements for planned major developments, including large hazardous and solid waste disposal facilities, mine reclamation, and water transfer.

Served as a hydrogeologist with the RCRA Hazardous Waste program. Duties included:

- Supervised the hydrogeologic investigation of hazardous waste sites to determine compliance with Subtitle C requirements.
  - Reviewed and wrote "part B" permits for the disposal of hazardous waste.
- Conducted RCRA Corrective Action investigations of waste sites and led inspections that formed the basis for significant enforcement actions that were developed in close coordination with U.S. EPA legal counsel.
- Wrote contract specifications and supervised contractor's investigations of waste sites.

With the National Park Service, directed service-wide investigations of contaminant sources to prevent degradation of water quality, including the following:

- Applied pertinent laws and regulations including CERCLA, RCRA, NEPA, NRDA, and the Clean Water Act to control military, mining, and landfill contaminants.
- Conducted watershed-scale investigations of contaminants at parks, including Yellowstone and Olympic National Park.
- Identified high-levels of perchlorate in soil adjacent to a national park in New Mexico and advised park superintendent on appropriate response actions under CERCLA.
- Served as a Park Service representative on the Interagency Perchlorate Steering Committee, a national workgroup.

- Developed a program to conduct environmental compliance audits of all National Parks while serving on a national workgroup.
- Co-authored two papers on the potential for water contamination from the operation of personal watercraft and snowmobiles, these papers serving as the basis for the development of nation-wide policy on the use of these vehicles in National Parks.
- Contributed to the Federal Multi-Agency Source Water Agreement under the Clean Water Action Plan.

**Policy:**

Served as senior management as the Senior Science Policy Advisor with the U.S. Environmental Protection Agency, Region 9. Activities included the following:

- Advising the Regional Administrator and senior management on emerging issues such as the potential for the gasoline additive MTBE and ammonium perchlorate to contaminate drinking water supplies.
- Shaping EPA's national response to these threats by serving on workgroups and by contributing to guidance, including the Office of Research and Development publication, Oxygenates in Water: Critical Information and Research Needs.
- Improving the technical training of EPA's scientific and engineering staff.
- Earning an EPA Bronze Medal for representing the region's 300 scientists and engineers in negotiations with the Administrator and senior management to better integrate scientific principles into the policy-making process.
- Establishing national protocol for the peer review of scientific documents.

**Geology:**

With the U.S. Forest Service, led investigations to determine hillslope stability of areas proposed for timber harvest in the central Oregon Coast Range. Specific activities included:

- Mapping geology in the field, and used aerial photographic interpretation and mathematical models to determine slope stability.
- Coordinating research with community stakeholders who were concerned with natural resource protection.
- Characterizing the geology of an aquifer that serves as the sole source of drinking water for the city of Medford, Oregon.

As a consultant with Dames and Moore, led geologic investigations of two contaminated sites (later listed on the Superfund NPL) in the Portland, Oregon, area and a large

hazardous waste site in eastern Oregon. Duties included the following:

- Supervising year-long effort for soil and groundwater sampling.
- Conducting aquifer tests.
  - Investigating active faults beneath sites proposed for hazardous waste disposal.

**Teaching:**

From 1990 to 1998, taught at least one course per semester at the community college and university levels:

- At San Francisco State University, held an adjunct faculty position and taught courses in environmental geology, oceanography (lab and lecture), hydrogeology, and groundwater contamination.
- Served as a committee member for graduate and undergraduate students.
- Taught courses in environmental geology and oceanography at the College of Marin.
- Part time geology instructor at Golden West College in Huntington Beach, California from 2010 to 2014 and in 2017.

**Invited Testimony, Reports, Papers and Presentations:**

**Hagemann, M.F., 2008.** Disclosure of Hazardous Waste Issues under CEQA. Presentation to the Public Environmental Law Conference, Eugene, Oregon.

**Hagemann, M.F., 2008.** Disclosure of Hazardous Waste Issues under CEQA. Invited presentation to U.S. EPA Region 9, San Francisco, California.

**Hagemann, M.F., 2005.** Use of Electronic Databases in Environmental Regulation, Policy Making and Public Participation. Brownfields 2005, Denver, Colorado.

**Hagemann, M.F., 2004.** Perchlorate Contamination of the Colorado River and Impacts to Drinking Water in Nevada and the Southwestern U.S. Presentation to a meeting of the American Groundwater Trust, Las Vegas, NV (served on conference organizing committee).

**Hagemann, M.F., 2004.** Invited testimony to a California Senate committee hearing on air toxins at schools in Southern California, Los Angeles.

**Brown, A., Farrow, J., Gray, A. and Hagemann, M., 2004.** An Estimate of Costs to Address MTBE Releases from Underground Storage Tanks and the Resulting Impact to Drinking Water Wells.

Presentation to the Ground Water and Environmental Law Conference, National

Groundwater Association.

**Hagemann, M.F., 2004.** Perchlorate Contamination of the Colorado River and Impacts to Drinking Water in Arizona and the Southwestern U.S. Presentation to a meeting of the American Groundwater Trust, Phoenix, AZ (served on conference organizing committee).

**Hagemann, M.F., 2003.** Perchlorate Contamination of the Colorado River and Impacts to Drinking Water in the Southwestern U.S. Invited presentation to a special committee meeting of the National Academy of Sciences, Irvine, CA.

**Hagemann, M.F., 2003.** Perchlorate Contamination of the Colorado River. Invited presentation to a tribal EPA meeting, Pechanga, CA.

**Hagemann, M.F., 2003.** Perchlorate Contamination of the Colorado River. Invited presentation to a meeting of tribal representatives, Parker, AZ.

**Hagemann, M.F., 2003.** Impact of Perchlorate on the Colorado River and Associated Drinking Water Supplies. Invited presentation to the Inter-Tribal Meeting, Torres Martinez Tribe.

**Hagemann, M.F., 2003.** The Emergence of Perchlorate as a Widespread Drinking Water Contaminant. Invited presentation to the U.S. EPA Region 9.

**Hagemann, M.F., 2003.** A Deductive Approach to the Assessment of Perchlorate Contamination. Invited presentation to the California Assembly Natural Resources Committee.

**Hagemann, M.F., 2003.** Perchlorate: A Cold War Legacy in Drinking Water. Presentation to a meeting of the National Groundwater Association.

**Hagemann, M.F., 2002.** From Tank to Tap: A Chronology of MTBE in Groundwater. Presentation to a meeting of the National Groundwater Association.

**Hagemann, M.F., 2002.** A Chronology of MTBE in Groundwater and an Estimate of Costs to Address Impacts to Groundwater. Presentation to the annual meeting of the Society of Environmental Journalists.

**Hagemann, M.F., 2002.** An Estimate of the Cost to Address MTBE Contamination in

Groundwater (and Who Will Pay). Presentation to a meeting of the National Groundwater Association.

**Hagemann, M.F.**, 2002. An Estimate of Costs to Address MTBE Releases from Underground Storage Tanks and the Resulting Impact to Drinking Water Wells. Presentation to a meeting of the U.S. EPA and State Underground Storage Tank Program managers.

**Hagemann, M.F.**, 2001. From Tank to Tap: A Chronology of MTBE in Groundwater. Unpublished report.

**Hagemann, M.F.**, 2001. Estimated Cleanup Cost for MTBE in Groundwater Used as Drinking Water. Unpublished report.

**Hagemann, M.F.**, 2001. Estimated Costs to Address MTBE Releases from Leaking Underground Storage Tanks. Unpublished report.

**Hagemann, M.F.**, and VanMouwerik, M., 1999. Potential Water Concerns Related to Snowmobile Usage. Water Resources Division, National Park Service, Technical Report.

VanMouwerik, M. and **Hagemann, M.F.** 1999, Water Quality Concerns Related to Personal Watercraft Usage. Water Resources Division, National Park Service, Technical Report.

**Hagemann, M.F.**, 1999, Is Dilution the Solution to Pollution in National Parks? The George Wright Society Biannual Meeting, Asheville, North Carolina.

**Hagemann, M.F.**, 1997, The Potential for MTBE to Contaminate Groundwater. U.S. EPA Superfund Groundwater Technical Forum Annual Meeting, Las Vegas, Nevada.

**Hagemann, M.F.**, and Gill, M., 1996, Impediments to Intrinsic Remediation, Moffett Field Naval Air Station, Conference on Intrinsic Remediation of Chlorinated Hydrocarbons, Salt Lake City.

**Hagemann, M.F.,** Fukunaga, G.L., 1996, The Vulnerability of Groundwater to Anthropogenic Contaminants on the Island of Maui, Hawaii. Hawaii Water Works Association Annual Meeting, Maui, October 1996.

**Hagemann, M. F.,** Fukanaga, G. L., 1996, Ranking Groundwater Vulnerability in Central Oahu, Hawaii. Proceedings, Geographic Information Systems in Environmental Resources Management, Air and Waste Management Association Publication VIP-61.

**Hagemann, M.F.,** 1994. Groundwater Characterization and Cleanup at Closing Military Bases in California. Proceedings, California Groundwater Resources Association Meeting.

**Hagemann, M.F. and Sabol, M.A.,** 1993. Role of the U.S. EPA in the High Plains States Groundwater Recharge Demonstration Program. Proceedings, Sixth Biennial Symposium on the Artificial Recharge of Groundwater.

**Hagemann, M.F.,** 1993. U.S. EPA Policy on the Technical Impracticability of the Cleanup of DNAPL-contaminated Groundwater. California Groundwater Resources Association Meeting.

**Hagemann, M.F.,** 1992. Dense Nonaqueous Phase Liquid Contamination of Groundwater: An Ounce of Prevention... Proceedings, Association of Engineering Geologists Annual Meeting, v. 35.

**Other Experience:**

Selected as subject matter expert for the California Professional Geologist licensing examinations, 2009-2011.

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***Paul Rosenfeld, Ph.D.*****Chemical Fate and Transport & Air Dispersion Modeling***Principal Environmental Chemist***Risk Assessment & Remediation Specialist****Education**

Ph.D. Soil Chemistry, University of Washington, 1999. Dissertation on volatile organic compound filtration.

M.S. Environmental Science, U.C. Berkeley, 1995. Thesis on organic waste economics.

B.A. Environmental Studies, U.C. Santa Barbara, 1991. Thesis on wastewater treatment.

**Professional Experience**

Dr. Rosenfeld has over 25 years' experience conducting environmental investigations and risk assessments for evaluating impacts to human health, property, and ecological receptors. His expertise focuses on the fate and transport of environmental contaminants, human health risk, exposure assessment, and ecological restoration. Dr. Rosenfeld has evaluated and modeled emissions from oil spills, landfills, boilers and incinerators, process stacks, storage tanks, confined animal feeding operations, industrial, military and agricultural sources, unconventional oil drilling operations, and locomotive and construction engines. His project experience ranges from monitoring and modeling of pollution sources to evaluating impacts of pollution on workers at industrial facilities and residents in surrounding communities. Dr. Rosenfeld has also successfully modeled exposure to contaminants distributed by water systems and via vapor intrusion.

Dr. Rosenfeld has investigated and designed remediation programs and risk assessments for contaminated sites containing lead, heavy metals, mold, bacteria, particulate matter, petroleum hydrocarbons, chlorinated solvents, pesticides, radioactive waste, dioxins and furans, semi- and volatile organic compounds, PCBs, PAHs, creosote, perchlorate, asbestos, per- and poly-fluoroalkyl substances (PFOA/PFOS), unusual polymers, fuel oxygenates (MTBE), among other pollutants. Dr. Rosenfeld also has experience evaluating greenhouse gas emissions from various projects and is an expert on the assessment of odors from industrial and agricultural sites, as well as the evaluation of odor nuisance impacts and technologies for abatement of odorous emissions. As a principal scientist at SWAPE, Dr. Rosenfeld directs air dispersion modeling and exposure assessments. He has served as an expert witness and testified about pollution sources causing nuisance and/or personal injury at sites and has testified as an expert witness on numerous cases involving exposure to soil, water and air contaminants from industrial, railroad, agricultural, and military sources.

## **Professional History:**

Soil Water Air Protection Enterprise (SWAPE); 2003 to present; Principal and Founding Partner  
UCLA School of Public Health; 2007 to 2011; Lecturer (Assistant Researcher)  
UCLA School of Public Health; 2003 to 2006; Adjunct Professor  
UCLA Environmental Science and Engineering Program; 2002-2004; Doctoral Intern Coordinator  
UCLA Institute of the Environment, 2001-2002; Research Associate  
Komex H<sub>2</sub>O Science, 2001 to 2003; Senior Remediation Scientist  
National Groundwater Association, 2002-2004; Lecturer  
San Diego State University, 1999-2001; Adjunct Professor  
Anteon Corp., San Diego, 2000-2001; Remediation Project Manager  
Ogden (now Amec), San Diego, 2000-2000; Remediation Project Manager  
Bechtel, San Diego, California, 1999 – 2000; Risk Assessor  
King County, Seattle, 1996 – 1999; Scientist  
James River Corp., Washington, 1995-96; Scientist  
Big Creek Lumber, Davenport, California, 1995; Scientist  
Plumas Corp., California and USFS, Tahoe 1993-1995; Scientist  
Peace Corps and World Wildlife Fund, St. Kitts, West Indies, 1991-1993; Scientist

## **Publications:**

- Remy, L.L., Clay T., Byers, V., **Rosenfeld P. E.** (2019) Hospital, Health, and Community Burden After Oil Refinery Fires, Richmond, California 2007 and 2012. *Environmental Health*. 18:48
- Simons, R.A., Seo, Y. **Rosenfeld, P.**, (2015) Modeling the Effect of Refinery Emission On Residential Property Value. *Journal of Real Estate Research*. 27(3):321-342
- Chen, J. A, Zapata A. R., Sutherland A. J., Molmen, D.R., Chow, B. S., Wu, L. E., **Rosenfeld, P. E.**, Hesse, R. C., (2012) Sulfur Dioxide and Volatile Organic Compound Exposure To A Community In Texas City Texas Evaluated Using Aermoc and Empirical Data. *American Journal of Environmental Science*, 8(6). 622-632.
- Rosenfeld, P.E.** & Feng, L. (2011). *The Risks of Hazardous Waste*. Amsterdam: Elsevier Publishing.
- Cheremisinoff, N.P., & **Rosenfeld, P.E.** (2011). *Handbook of Pollution Prevention and Cleaner Production: Best Practices in the Agrochemical Industry*, Amsterdam: Elsevier Publishing.
- Gonzalez, J., Feng, L., Sutherland, A., Waller, C., Sok, H., Hesse, R., **Rosenfeld, P.** (2010). PCBs and Dioxins/Furans in Attic Dust Collected Near Former PCB Production and Secondary Copper Facilities in Sauget, IL. *Procedia Environmental Sciences*. 113–125.
- Feng, L., Wu, C., Tam, L., Sutherland, A.J., Clark, J.J., **Rosenfeld, P.E.** (2010). Dioxin and Furan Blood Lipid and Attic Dust Concentrations in Populations Living Near Four Wood Treatment Facilities in the United States. *Journal of Environmental Health*. 73(6), 34-46.
- Cheremisinoff, N.P., & **Rosenfeld, P.E.** (2010). *Handbook of Pollution Prevention and Cleaner Production: Best Practices in the Wood and Paper Industries*. Amsterdam: Elsevier Publishing.
- Cheremisinoff, N.P., & **Rosenfeld, P.E.** (2009). *Handbook of Pollution Prevention and Cleaner Production: Best Practices in the Petroleum Industry*. Amsterdam: Elsevier Publishing.
- Wu, C., Tam, L., Clark, J., **Rosenfeld, P.** (2009). Dioxin and furan blood lipid concentrations in populations living near four wood treatment facilities in the United States. *WIT Transactions on Ecology and the Environment, Air Pollution*. 123 (17), 319-327.

Tam L. K., Wu C. D., Clark J. J. and **Rosenfeld, P.E.** (2008). A Statistical Analysis Of Attic Dust And Blood Lipid Concentrations Of Tetrachloro-p-Dibenzodioxin (TCDD) Toxicity Equivalency Quotients (TEQ) In Two Populations Near Wood Treatment Facilities. *Organohalogen Compounds*, 70, 002252-002255.

Tam L. K., Wu C. D., Clark J. J. and **Rosenfeld, P.E.** (2008). Methods For Collect Samples For Assessing Dioxins And Other Environmental Contaminants In Attic Dust: A Review. *Organohalogen Compounds*, 70, 000527-000530.

Hensley, A.R. A. Scott, J. J. J. Clark, **Rosenfeld, P.E.** (2007). Attic Dust and Human Blood Samples Collected near a Former Wood Treatment Facility. *Environmental Research*. 105, 194-197.

**Rosenfeld, P.E.**, J. J. J. Clark, A. R. Hensley, M. Suffet. (2007). The Use of an Odor Wheel Classification for Evaluation of Human Health Risk Criteria for Compost Facilities. *Water Science & Technology* 55(5), 345-357.

**Rosenfeld, P. E.**, M. Suffet. (2007). The Anatomy Of Odour Wheels For Odours Of Drinking Water, Wastewater, Compost And The Urban Environment. *Water Science & Technology* 55(5), 335-344.

Sullivan, P. J. Clark, J.J.J., Agardy, F. J., **Rosenfeld, P.E.** (2007). *Toxic Legacy, Synthetic Toxins in the Food, Water, and Air in American Cities*. Boston Massachusetts: Elsevier Publishing

**Rosenfeld, P.E.**, and Suffet I.H. (2004). Control of Compost Odor Using High Carbon Wood Ash. *Water Science and Technology*. 49(9),171-178.

**Rosenfeld P. E.**, J.J. Clark, I.H. (Mel) Suffet (2004). The Value of An Odor-Quality-Wheel Classification Scheme For The Urban Environment. *Water Environment Federation's Technical Exhibition and Conference (WEFTEC) 2004*. New Orleans, October 2-6, 2004.

**Rosenfeld, P.E.**, and Suffet, I.H. (2004). Understanding Odorants Associated With Compost, Biomass Facilities, and the Land Application of Biosolids. *Water Science and Technology*. 49(9), 193-199.

**Rosenfeld, P.E.**, and Suffet I.H. (2004). Control of Compost Odor Using High Carbon Wood Ash, *Water Science and Technology*, 49( 9), 171-178.

**Rosenfeld, P. E.**, Grey, M. A., Sellew, P. (2004). Measurement of Biosolids Odor and Odorant Emissions from Windrows, Static Pile and Biofilter. *Water Environment Research*. 76(4), 310-315.

**Rosenfeld, P.E.**, Grey, M and Suffet, M. (2002). Compost Demonstration Project, Sacramento California Using High-Carbon Wood Ash to Control Odor at a Green Materials Composting Facility. *Integrated Waste Management Board Public Affairs Office, Publications Clearinghouse (MS-6)*, Sacramento, CA Publication #442-02-008.

**Rosenfeld, P.E.**, and C.L. Henry. (2001). Characterization of odor emissions from three different biosolids. *Water Soil and Air Pollution*. 127(1-4), 173-191.

**Rosenfeld, P.E.**, and Henry C. L., (2000). Wood ash control of odor emissions from biosolids application. *Journal of Environmental Quality*. 29, 1662-1668.

**Rosenfeld, P.E.**, C.L. Henry and D. Bennett. (2001). Wastewater dewatering polymer affect on biosolids odor emissions and microbial activity. *Water Environment Research*. 73(4), 363-367.

**Rosenfeld, P.E.**, and C.L. Henry. (2001). Activated Carbon and Wood Ash Sorption of Wastewater, Compost, and Biosolids Odorants. *Water Environment Research*, 73, 388-393.

**Rosenfeld, P.E.**, and Henry C. L., (2001). High carbon wood ash effect on biosolids microbial activity and odor. *Water Environment Research*. 131(1-4), 247-262.

Chollack, T. and P. Rosenfeld. (1998). Compost Amendment Handbook For Landscaping. Prepared for and distributed by the City of Redmond, Washington State.

Rosenfeld, P. E. (1992). The Mount Liamuiga Crater Trail. *Heritage Magazine of St. Kitts*, 3(2).

Rosenfeld, P. E. (1993). High School Biogas Project to Prevent Deforestation On St. Kitts. *Biomass Users Network*, 7(1).

Rosenfeld, P. E. (1998). Characterization, Quantification, and Control of Odor Emissions From Biosolids Application To Forest Soil. Doctoral Thesis. University of Washington College of Forest Resources.

Rosenfeld, P. E. (1994). Potential Utilization of Small Diameter Trees on Sierra County Public Land. Masters thesis reprinted by the Sierra County Economic Council. Sierra County, California.

Rosenfeld, P. E. (1991). How to Build a Small Rural Anaerobic Digester & Uses Of Biogas In The First And Third World. Bachelors Thesis. University of California.

### **Presentations:**

Rosenfeld, P.E., "The science for Perfluorinated Chemicals (PFAS): What makes remediation so hard?" Law Seminars International, (May 9-10, 2018) 800 Fifth Avenue, Suite 101 Seattle, WA.

Rosenfeld, P.E., Sutherland, A; Hesse, R.; Zapata, A. (October 3-6, 2013). Air dispersion modeling of volatile organic emissions from multiple natural gas wells in Decatur, TX. *44th Western Regional Meeting, American Chemical Society*. Lecture conducted from Santa Clara, CA.

Sok, H.L.; Waller, C.C.; Feng, L.; Gonzalez, J.; Sutherland, A.J.; Wisdom-Stack, T.; Sahai, R.K.; Hesse, R.C.; Rosenfeld, P.E. (June 20-23, 2010). Atrazine: A Persistent Pesticide in Urban Drinking Water. *Urban Environmental Pollution*. Lecture conducted from Boston, MA.

Feng, L.; Gonzalez, J.; Sok, H.L.; Sutherland, A.J.; Waller, C.C.; Wisdom-Stack, T.; Sahai, R.K.; La, M.; Hesse, R.C.; Rosenfeld, P.E. (June 20-23, 2010). Bringing Environmental Justice to East St. Louis, Illinois. *Urban Environmental Pollution*. Lecture conducted from Boston, MA.

Rosenfeld, P.E. (April 19-23, 2009). Perfluorooctanoic Acid (PFOA) and Perfluorooctane Sulfonate (PFOS) Contamination in Drinking Water From the Use of Aqueous Film Forming Foams (AFFF) at Airports in the United States. *2009 Ground Water Summit and 2009 Ground Water Protection Council Spring Meeting*, Lecture conducted from Tuscon, AZ.

Rosenfeld, P.E. (April 19-23, 2009). Cost to Filter Atrazine Contamination from Drinking Water in the United States" Contamination in Drinking Water From the Use of Aqueous Film Forming Foams (AFFF) at Airports in the United States. *2009 Ground Water Summit and 2009 Ground Water Protection Council Spring Meeting*. Lecture conducted from Tuscon, AZ.

Wu, C., Tam, L., Clark, J., Rosenfeld, P. (20-22 July, 2009). Dioxin and furan blood lipid concentrations in populations living near four wood treatment facilities in the United States. Brebbia, C.A. and Popov, V., eds., *Air Pollution XVII: Proceedings of the Seventeenth International Conference on Modeling, Monitoring and Management of Air Pollution*. Lecture conducted from Tallinn, Estonia.

Rosenfeld, P. E. (October 15-18, 2007). Moss Point Community Exposure To Contaminants From A Releasing Facility. *The 23<sup>rd</sup> Annual International Conferences on Soils Sediment and Water*. Platform lecture conducted from University of Massachusetts, Amherst MA.

Rosenfeld, P. E. (October 15-18, 2007). The Repeated Trespass of Tritium-Contaminated Water Into A Surrounding Community Form Repeated Waste Spills From A Nuclear Power Plant. *The 23<sup>rd</sup> Annual International*

*Conferences on Soils Sediment and Water*. Platform lecture conducted from University of Massachusetts, Amherst MA.

**Rosenfeld, P. E.** (October 15-18, 2007). Somerville Community Exposure To Contaminants From Wood Treatment Facility Emissions. The 23<sup>rd</sup> Annual International Conferences on Soils Sediment and Water. Lecture conducted from University of Massachusetts, Amherst MA.

**Rosenfeld P. E.** (March 2007). Production, Chemical Properties, Toxicology, & Treatment Case Studies of 1,2,3-Trichloropropane (TCP). *The Association for Environmental Health and Sciences (AEHS) Annual Meeting*. Lecture conducted from San Diego, CA.

**Rosenfeld P. E.** (March 2007). Blood and Attic Sampling for Dioxin/Furan, PAH, and Metal Exposure in Florida, Alabama. *The AEHS Annual Meeting*. Lecture conducted from San Diego, CA.

Hensley A.R., Scott, A., **Rosenfeld P.E.**, Clark, J.J.J. (August 21 – 25, 2006). Dioxin Containing Attic Dust And Human Blood Samples Collected Near A Former Wood Treatment Facility. *The 26th International Symposium on Halogenated Persistent Organic Pollutants – DIOXIN2006*. Lecture conducted from Radisson SAS Scandinavia Hotel in Oslo Norway.

Hensley A.R., Scott, A., **Rosenfeld P.E.**, Clark, J.J.J. (November 4-8, 2006). Dioxin Containing Attic Dust And Human Blood Samples Collected Near A Former Wood Treatment Facility. *APHA 134 Annual Meeting & Exposition*. Lecture conducted from Boston Massachusetts.

**Paul Rosenfeld Ph.D.** (October 24-25, 2005). Fate, Transport and Persistence of PFOA and Related Chemicals. Mealey's C8/PFOA. *Science, Risk & Litigation Conference*. Lecture conducted from The Rittenhouse Hotel, Philadelphia, PA.

**Paul Rosenfeld Ph.D.** (September 19, 2005). Brominated Flame Retardants in Groundwater: Pathways to Human Ingestion, Toxicology and Remediation *PEMA Emerging Contaminant Conference*. Lecture conducted from Hilton Hotel, Irvine California.

**Paul Rosenfeld Ph.D.** (September 19, 2005). Fate, Transport, Toxicity, And Persistence of 1,2,3-TCP. *PEMA Emerging Contaminant Conference*. Lecture conducted from Hilton Hotel in Irvine, California.

**Paul Rosenfeld Ph.D.** (September 26-27, 2005). Fate, Transport and Persistence of PDBEs. *Mealey's Groundwater Conference*. Lecture conducted from Ritz Carlton Hotel, Marina Del Ray, California.

**Paul Rosenfeld Ph.D.** (June 7-8, 2005). Fate, Transport and Persistence of PFOA and Related Chemicals. *International Society of Environmental Forensics: Focus On Emerging Contaminants*. Lecture conducted from Sheraton Oceanfront Hotel, Virginia Beach, Virginia.

**Paul Rosenfeld Ph.D.** (July 21-22, 2005). Fate Transport, Persistence and Toxicology of PFOA and Related Perfluorochemicals. *2005 National Groundwater Association Ground Water And Environmental Law Conference*. Lecture conducted from Wyndham Baltimore Inner Harbor, Baltimore Maryland.

**Paul Rosenfeld Ph.D.** (July 21-22, 2005). Brominated Flame Retardants in Groundwater: Pathways to Human Ingestion, Toxicology and Remediation. *2005 National Groundwater Association Ground Water and Environmental Law Conference*. Lecture conducted from Wyndham Baltimore Inner Harbor, Baltimore Maryland.

**Paul Rosenfeld, Ph.D.** and James Clark Ph.D. and Rob Hesse R.G. (May 5-6, 2004). Tert-butyl Alcohol Liability and Toxicology, A National Problem and Unquantified Liability. *National Groundwater Association. Environmental Law Conference*. Lecture conducted from Congress Plaza Hotel, Chicago Illinois.

**Paul Rosenfeld, Ph.D.** (March 2004). Perchlorate Toxicology. *Meeting of the American Groundwater Trust*. Lecture conducted from Phoenix Arizona.

Hagemann, M.F., **Paul Rosenfeld, Ph.D.** and Rob Hesse (2004). Perchlorate Contamination of the Colorado River. *Meeting of tribal representatives*. Lecture conducted from Parker, AZ.

**Paul Rosenfeld, Ph.D.** (April 7, 2004). A National Damage Assessment Model For PCE and Dry Cleaners. *Drycleaner Symposium. California Ground Water Association*. Lecture conducted from Radison Hotel, Sacramento, California.

**Rosenfeld, P. E., Grey, M.,** (June 2003) Two stage biofilter for biosolids composting odor control. *Seventh International In Situ And On Site Bioremediation Symposium Battelle Conference Orlando, FL.*

**Paul Rosenfeld, Ph.D.** and James Clark Ph.D. (February 20-21, 2003) Understanding Historical Use, Chemical Properties, Toxicity and Regulatory Guidance of 1,4 Dioxane. *National Groundwater Association. Southwest Focus Conference. Water Supply and Emerging Contaminants..* Lecture conducted from Hyatt Regency Phoenix Arizona.

**Paul Rosenfeld, Ph.D.** (February 6-7, 2003). Underground Storage Tank Litigation and Remediation. *California CUPA Forum*. Lecture conducted from Marriott Hotel, Anaheim California.

**Paul Rosenfeld, Ph.D.** (October 23, 2002) Underground Storage Tank Litigation and Remediation. *EPA Underground Storage Tank Roundtable*. Lecture conducted from Sacramento California.

**Rosenfeld, P.E. and Suffet, M.** (October 7- 10, 2002). Understanding Odor from Compost, *Wastewater and Industrial Processes. Sixth Annual Symposium On Off Flavors in the Aquatic Environment. International Water Association*. Lecture conducted from Barcelona Spain.

**Rosenfeld, P.E. and Suffet, M.** (October 7- 10, 2002). Using High Carbon Wood Ash to Control Compost Odor. *Sixth Annual Symposium On Off Flavors in the Aquatic Environment. International Water Association*. Lecture conducted from Barcelona Spain.

**Rosenfeld, P.E. and Grey, M. A.** (September 22-24, 2002). Biocycle Composting For Coastal Sage Restoration. *Northwest Biosolids Management Association*. Lecture conducted from Vancouver Washington..

**Rosenfeld, P.E. and Grey, M. A.** (November 11-14, 2002). Using High-Carbon Wood Ash to Control Odor at a Green Materials Composting Facility. *Soil Science Society Annual Conference*. Lecture conducted from Indianapolis, Maryland.

**Rosenfeld, P.E.** (September 16, 2000). Two stage biofilter for biosolids composting odor control. *Water Environment Federation*. Lecture conducted from Anaheim California.

**Rosenfeld, P.E.** (October 16, 2000). Wood ash and biofilter control of compost odor. *Biofest*. Lecture conducted from Ocean Shores, California.

**Rosenfeld, P.E.** (2000). Bioremediation Using Organic Soil Amendments. *California Resource Recovery Association*. Lecture conducted from Sacramento California.

**Rosenfeld, P.E., C.L. Henry, R. Harrison.** (1998). Oat and Grass Seed Germination and Nitrogen and Sulfur Emissions Following Biosolids Incorporation With High-Carbon Wood-Ash. *Water Environment Federation 12th Annual Residuals and Biosolids Management Conference Proceedings*. Lecture conducted from Bellevue Washington.

**Rosenfeld, P.E., and C.L. Henry.** (1999). An evaluation of ash incorporation with biosolids for odor reduction. *Soil Science Society of America*. Lecture conducted from Salt Lake City Utah.

**Rosenfeld, P.E., C.L. Henry, R. Harrison.** (1998). Comparison of Microbial Activity and Odor Emissions from Three Different Biosolids Applied to Forest Soil. *Brown and Caldwell*. Lecture conducted from Seattle Washington.

**Rosenfeld, P.E., C.L. Henry.** (1998). Characterization, Quantification, and Control of Odor Emissions from Biosolids Application To Forest Soil. *Biofest*. Lecture conducted from Lake Chelan, Washington.

**Rosenfeld, P.E., C.L. Henry, R. Harrison.** (1998). Oat and Grass Seed Germination and Nitrogen and Sulfur Emissions Following Biosolids Incorporation With High-Carbon Wood-Ash. Water Environment Federation 12th Annual Residuals and Biosolids Management Conference Proceedings. Lecture conducted from Bellevue Washington.

**Rosenfeld, P.E., C.L. Henry, R. B. Harrison, and R. Dills.** (1997). Comparison of Odor Emissions From Three Different Biosolids Applied to Forest Soil. *Soil Science Society of America*. Lecture conducted from Anaheim California.

### **Teaching Experience:**

UCLA Department of Environmental Health (Summer 2003 through 20010) Taught Environmental Health Science 100 to students, including undergrad, medical doctors, public health professionals and nurses. Course focused on the health effects of environmental contaminants.

National Ground Water Association, Successful Remediation Technologies. Custom Course in Sante Fe, New Mexico. May 21, 2002. Focused on fate and transport of fuel contaminants associated with underground storage tanks.

National Ground Water Association; Successful Remediation Technologies Course in Chicago Illinois. April 1, 2002. Focused on fate and transport of contaminants associated with Superfund and RCRA sites.

California Integrated Waste Management Board, April and May, 2001. Alternative Landfill Caps Seminar in San Diego, Ventura, and San Francisco. Focused on both prescriptive and innovative landfill cover design.

UCLA Department of Environmental Engineering, February 5, 2002. Seminar on Successful Remediation Technologies focusing on Groundwater Remediation.

University Of Washington, Soil Science Program, Teaching Assistant for several courses including: Soil Chemistry, Organic Soil Amendments, and Soil Stability.

U.C. Berkeley, Environmental Science Program Teaching Assistant for Environmental Science 10.

### **Academic Grants Awarded:**

California Integrated Waste Management Board. \$41,000 grant awarded to UCLA Institute of the Environment. Goal: To investigate effect of high carbon wood ash on volatile organic emissions from compost. 2001.

Synagro Technologies, Corona California: \$10,000 grant awarded to San Diego State University. Goal: investigate effect of biosolids for restoration and remediation of degraded coastal sage soils. 2000.

King County, Department of Research and Technology, Washington State. \$100,000 grant awarded to University of Washington: Goal: To investigate odor emissions from biosolids application and the effect of polymers and ash on VOC emissions. 1998.

Northwest Biosolids Management Association, Washington State. \$20,000 grant awarded to investigate effect of polymers and ash on VOC emissions from biosolids. 1997.

James River Corporation, Oregon: \$10,000 grant was awarded to investigate the success of genetically engineered Poplar trees with resistance to round-up. 1996.

United State Forest Service, Tahoe National Forest: \$15,000 grant was awarded to investigating fire ecology of the Tahoe National Forest. 1995.

Kellogg Foundation, Washington D.C. \$500 grant was awarded to construct a large anaerobic digester on St. Kitts in West Indies. 1993

### **Deposition and/or Trial Testimony:**

In the Circuit Court Of The Twentieth Judicial Circuit, St Clair County, Illinois  
Martha Custer et al., Plaintiff vs. Cerro Flow Products, Inc., Defendants  
Case No.: No. 0i9-L-2295  
Rosenfeld Deposition, 5-14-2021  
Trial, October 8-4-2021

In the Circuit Court of Cook County Illinois  
Joseph Rafferty, Plaintiff vs. Consolidated Rail Corporation and National Railroad Passenger Corporation  
d/b/a AMTRAK,  
Case No.: No. 18-L-6845  
Rosenfeld Deposition, 6-28-2021

In the United States District Court For the Northern District of Illinois  
Theresa Romcoe, Plaintiff vs. Northeast Illinois Regional Commuter Railroad Corporation d/b/a METRA  
Rail. Defendants  
Case No.: No. 17-cv-8517  
Rosenfeld Deposition, 5-25-2021

In the Superior Court of the State of Arizona In and For the Cunty of Maricopa  
Mary Tryon et al., Plaintiff vs. The City of Pheonix v. Cox Cactus Farm, L.L.C., Utah Shelter Systems, Inc.  
Case Number CV20127-094749  
Rosenfeld Deposition: 5-7-2021

In the United States District Court for the Eastern District of Texas Beaumont Division  
Robinson, Jeremy et al *Plaintiffs*, vs. CNA Insurance Company et al.  
Case Number 1:17-cv-000508  
Rosenfeld Deposition: 3-25-2021

In the Superior Court of the State of California, County of San Bernardino  
Gary Garner, Personal Representative for the Estate of Melvin Garner vs. BNSF Railway Company.  
Case No. 1720288  
Rosenfeld Deposition 2-23-2021

In the Superior Court of the State of California, County of Los Angeles, Spring Street Courthouse  
Benny M Rodriguez vs. Union Pacific Railroad, A Corporation, et al.  
Case No. 18STCV01162  
Rosenfeld Deposition 12-23-2020

In the Circuit Court of Jackson County, Missouri  
Karen Cornwell, *Plaintiff*, vs. Marathon Petroleum, LP, *Defendant*.  
Case No.: 1716-CV10006  
Rosenfeld Deposition. 8-30-2019

In the United States District Court For The District of New Jersey  
Duarte et al, *Plaintiffs*, vs. United States Metals Refining Company et. al. *Defendant*.  
Case No.: 2:17-cv-01624-ES-SCM  
Rosenfeld Deposition. 6-7-2019

- In the United States District Court of Southern District of Texas Galveston Division  
M/T Carla Maersk, *Plaintiffs*, vs. Conti 168., Schiffahrts-GMBH & Co. Bulker KG MS "Conti Perdido"  
*Defendant*  
Case No.: 3:15-CV-00106 consolidated with 3:15-CV-00237  
Rosenfeld Deposition. 5-9-2019
- In The Superior Court of the State of California In And For The County Of Los Angeles – Santa Monica  
Carole-Taddeo-Bates et al., vs. Ifran Khan et al., Defendants  
Case No.: No. BC615636  
Rosenfeld Deposition, 1-26-2019
- In The Superior Court of the State of California In And For The County Of Los Angeles – Santa Monica  
The San Gabriel Valley Council of Governments et al. vs El Adobe Apts. Inc. et al., Defendants  
Case No.: No. BC646857  
Rosenfeld Deposition, 10-6-2018; Trial 3-7-19
- In United States District Court For The District of Colorado  
Bells et al. Plaintiff vs. The 3M Company et al., Defendants  
Case No.: 1:16-cv-02531-RBJ  
Rosenfeld Deposition, 3-15-2018 and 4-3-2018
- In The District Court Of Regan County, Texas, 112<sup>th</sup> Judicial District  
Phillip Bales et al., Plaintiff vs. Dow Agrosiences, LLC, et al., Defendants  
Cause No.: 1923  
Rosenfeld Deposition, 11-17-2017
- In The Superior Court of the State of California In And For The County Of Contra Costa  
Simons et al., Plaintiffs vs. Chevron Corporation, et al., Defendants  
Cause No C12-01481  
Rosenfeld Deposition, 11-20-2017
- In The Circuit Court Of The Twentieth Judicial Circuit, St Clair County, Illinois  
Martha Custer et al., Plaintiff vs. Cerro Flow Products, Inc., Defendants  
Case No.: No. 0i9-L-2295  
Rosenfeld Deposition, 8-23-2017
- In United States District Court For The Southern District of Mississippi  
Guy Manuel vs. The BP Exploration et al., Defendants  
Case: No 1:19-cv-00315-RHW  
Rosenfeld Deposition, 4-22-2020
- In The Superior Court of the State of California, For The County of Los Angeles  
Warrn Gilbert and Penny Gilber, Plaintiff vs. BMW of North America LLC  
Case No.: LC102019 (c/w BC582154)  
Rosenfeld Deposition, 8-16-2017, Trail 8-28-2018
- In the Northern District Court of Mississippi, Greenville Division  
Brenda J. Cooper, et al., *Plaintiffs*, vs. Meritor Inc., et al., *Defendants*  
Case Number: 4:16-cv-52-DMB-JVM  
Rosenfeld Deposition: July 2017

In The Superior Court of the State of Washington, County of Snohomish  
Michael Davis and Julie Davis et al., Plaintiff vs. Cedar Grove Composting Inc., Defendants  
Case No.: No. 13-2-03987-5  
Rosenfeld Deposition, February 2017  
Trial, March 2017

In The Superior Court of the State of California, County of Alameda  
Charles Spain., Plaintiff vs. Thermo Fisher Scientific, et al., Defendants  
Case No.: RG14711115  
Rosenfeld Deposition, September 2015

In The Iowa District Court In And For Poweshiek County  
Russell D. Winburn, et al., Plaintiffs vs. Doug Hoksbergen, et al., Defendants  
Case No.: LALA002187  
Rosenfeld Deposition, August 2015

In The Circuit Court of Ohio County, West Virginia  
Robert Andrews, et al. v. Antero, et al.  
Civil Action NO. 14-C-30000  
Rosenfeld Deposition, June 2015

In The Iowa District Court For Muscatine County  
Laurie Freeman et. al. Plaintiffs vs. Grain Processing Corporation, Defendant  
Case No 4980  
Rosenfeld Deposition: May 2015

In the Circuit Court of the 17<sup>th</sup> Judicial Circuit, in and For Broward County, Florida  
Walter Hinton, et. al. Plaintiff, vs. City of Fort Lauderdale, Florida, a Municipality, Defendant.  
Case Number CACE07030358 (26)  
Rosenfeld Deposition: December 2014

In the County Court of Dallas County Texas  
Lisa Parr et al, *Plaintiff*, vs. Aruba et al, *Defendant*.  
Case Number cc-11-01650-E  
Rosenfeld Deposition: March and September 2013  
Rosenfeld Trial: April 2014

In the Court of Common Pleas of Tuscarawas County Ohio  
John Michael Abicht, et al., *Plaintiffs*, vs. Republic Services, Inc., et al., *Defendants*  
Case Number: 2008 CT 10 0741 (Cons. w/ 2009 CV 10 0987)  
Rosenfeld Deposition: October 2012

In the United States District Court for the Middle District of Alabama, Northern Division  
James K. Benefield, et al., *Plaintiffs*, vs. International Paper Company. *Defendant*.  
Civil Action Number 2:09-cv-232-WHA-TFM  
Rosenfeld Deposition: July 2010, June 2011

In the Circuit Court of Jefferson County Alabama  
Jaeanette Moss Anthony, et al., *Plaintiffs*, vs. Drummond Company Inc., et al., *Defendants*  
Civil Action No. CV 2008-2076  
Rosenfeld Deposition: September 2010

In the United States District Court, Western District Lafayette Division  
Ackle et al., *Plaintiffs*, vs. Citgo Petroleum Corporation, et al., *Defendants*.  
Case Number 2:07CV1052  
Rosenfeld Deposition: July 2009

**EXHIBIT B**



SMITH ENGINEERING & MANAGEMENT

September 27, 2021

Ms. Tara Messing  
Adams Broadwell Joseph & Cardozo  
601 Gateway Boulevard, Suite 1000  
South San Francisco, CA 94080-7037

**Subject: Ocean Kamp Draft Supplemental EIR**

P21019

Dear Ms. Messing:

I reviewed the Draft Supplemental Environmental Impact Report (the "DSEIR") for the Ocean Kamp Project (the "Project") in the City of Oceanside (the "City"). My review is with respect to transportation and circulation considerations. My qualifications to perform this review include registration as a Civil and Traffic Engineer in California, over 50 years professional consulting practice in these fields, and both the preparation and review of the traffic and transportation components of numerous environmental documents prepared under the California Environmental Quality Act ("CEQA"). My professional resume is attached hereto.

**The Vehicle Miles Traveled Analysis of the Project's Retail/Commercial Component Was Conducted Relative To an Improper Baseline.**

The DSEIR finds that, using the San Diego County Association of Governments ("SANDAG") Series 13 Year 2020 Travel Demand Model, with the Project land use encoded within the appropriate zones, total gross regional vehicle miles traveled ("VMT") would be 83,764,311 miles, while in a baseline run of the Model for that same year but *without the Project*, the gross regional VMT would be 84,682,067 miles.<sup>1</sup> Hence, the DSEIR's finding is that the Project results in a *net reduction of 917,756 miles of total regional VMT* and that consequentially the

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<sup>1</sup> DSEIR at 4.5-10—4.5-11.

Project commercial component does not have a significant adverse VMT impact.<sup>2</sup> However, this finding is implausible unless the 2020 Baseline without Project run of the Model included the encoding for a much greater use on the Project site, such as assuming development of the previously proposed The Pavilion at Oceanside Project or the Pavilion at Oceanside Reduced Project Draft Subarea Plan Alternative. Or, though less likely, it could reflect an assumption in the "With Project" case that the land use assumed for the Project site is not additional development for the Region but a transference of development that had been assumed in a more VMT generating location elsewhere in the Baseline case. The DSEIR must explain exactly what land use was assumed for the Project site in the 2020 Without Project Baseline Case or if a transference of assumed development elsewhere is reflected in the "With Project" case, what justification there is for this transference.

The DSEIR indicates that the site, once used for a drive-in theatre, has been used over the last decade for a Saturday flea market. Neither of these uses, if assumed in the Model Baseline run, could generate the overall VMT results in the DSEIR VMT analysis as described above. If the land uses assumed in the "Baseline Without Project" SANDAG model run reflect the land uses comprising The Pavilion at Oceanside Project or its Reduced Project Alternative, this would be in conflict with CEQA's requirement that the proper baseline is existing conditions, not permitted conditions that had never occurred. Counting the permitted but never built Pavilion at Oceanside project as part of the baseline creates an illusory baseline that discounts the Project's actual VMT against VMT for a project that was never built or operated. If the DSEIR's VMT analysis has assumed an improper baseline that includes development that never existed on the Project site, the DSEIR must be revised and recirculated with a VMT analysis for the Project's proposed uses that relies on a proper baseline given existing uses.

### **The Mitigation Proposed for the Significant Residential VMT Impact the DSEIR Discloses Is Unlikely To Mitigate VMT to Less than Significant Levels**

The DSEIR discloses at Section 4.5, Table 4.5-2 at page 4.5-10 that the Project would generate 16.0 VMT per capita resident, that the appropriate threshold of significance is 14.96 VMT per capita, and that consequentially this is a significant impact. The related narrative on the same page discloses that mitigation would have to reduce residential VMT per capita by 6.68 percent to bring VMT per capita below the significant impact threshold. In order to do so, the DSEIR proposes at page 4.5-12 to implement a measure from the California Air Pollution Control Officers Association ("CAPCOA") publication *Quantifying Greenhouse Gas Emission Measures: A Resource For Local Government To Assess*

<sup>2</sup> *Id.*

*Reductions From Greenhouse Gas Emissions Mitigation Measures.* The measure selected is entitled LUT-9: Improve Design of Development in the referenced publication. It is labeled mitigation measure TRA-1 in the DSEIR and described as follows:

**“TRA-1: Improve Development Design:** Implement the guidelines outlined in CAPCOA measure LUT-9, which is applicable to residential projects in an urban or suburban area. The proposed project shall improve the proposed design elements to enhance walkability and connectivity. Improved street network characteristics within a neighborhood include street accessibility, usually measured in terms of average block size, proportion of four-way intersections, or number of intersections per square mile. Design is also measured in terms of sidewalk coverage, building setbacks, street widths, pedestrian crossings, presence of street trees, and a host of other physical variables that differentiate pedestrian-oriented environments from auto-oriented environments.”

The DSEIR asserts that this vague measure would reduce residential VMT per capita by 11.7 percent.

The first point that must be realized is that the City and its consultants are not implementing improvements to the Project design at all. They are merely asserting that because of certain features of the design, the SANDAG Model overstates residential per capita VMT by 11.7 percent. Close examination of the metrics involved demonstrates why this assertion is entirely unsupported.

What DSEIR Appendix E and that document's own Appendix B make clear is that the reduction is based on a comparison of density of intersections per square mile in the Project site to average density per square mile for typical suburban areas. However, it is baseless to assert that the density of intersections per square mile in a relatively tiny area of about 14 hundredths of a square mile (0.143 square miles) would alter the average VMT of residents traveling between that area and all of the SANDAG region that totals roughly 4000 square miles. What is reasonably likely is that the subject metric could alter the transportation mode choices of residents from automotive to non-automotive modes on trips that remain entirely within the Project area and similarly sized areas immediately contiguous to it by something like 11.7 percent. The DSEIR and its appendices do not identify how many trips by Project residents remain internal to the Project site or in its immediate environs so we are unable to compute how much VMT would be influenced by the local area intersection density metric. But the number of automotive trips remaining in such a small area are few and they comprise the shortest trips made by residents. So the likely impact of mitigation measure TRA-1 is likely far less than the 11.7 percent reduction in average VMT per capita resident assumed in the DSEIR.

In addition to the single mitigation measure above, the DSEIR identifies a non-enforceable measure and several “trip reduction strategies as Project features and conditions of approval, with implementation required at 50 percent occupancy,” the effectiveness of which are both unquantified and dubious. These include:

- Coordinating with the City to provide a pedestrian crosswalk across Benet Road at Airport Road to help address the lack of pedestrian facilities on the eastern side of Benet Road.
- Provide ride sharing coordination through the Project Homeowners Association to match residents interested in carpooling.
- Coordinating with nearby schools and/or with the Project Homeowners Association to match residents interested in carpooling to/from school.
- Provide on-site transit opportunities information.
- Encourage bicycling by providing on-site bicycle infrastructure such as bike racks.

Regarding the crosswalk across Benet Road at Airport Road, merely having the Project Sponsor “coordinate” with the City regarding a possible public improvement does not qualify as effective or enforceable mitigation under CEQA; both parties must commit to implementing the improvement, and the MMRP must include a binding requirement to carry out the improvement, to qualify as mitigation. Moreover, the proposed crosswalk is of virtually no relevance to the Project. Airport Road does not even directly connect to the Project site. The intersection is about 0.8 miles distance as the crow flies from the nearest corner of the Project site and much farther via actual road connections. Although the DSEIR asserts the crosswalk will improve connection to the San Luis Rey River Trail, there is much closer and more direct connection to this trail from the Project via Foussat Road or Ocean Point Road. Finally, the limits of the intersection of Benet Road with Airport Road is only about 60 feet from the limits of the signalized intersection of Benet Road with State Route 76 by strict engineering definition; about 130 feet by projection of curb line tangents. Given this close spacing, it may not be practical to place a crosswalk at the suggested location at all.

Regarding carpool matching through the homeowners association, while this sounds like a nice idea, the sad truth is that people rarely pay attention to these organizations unless there is some burning problem in the neighborhood or the association leaders propose a large financial assessment to make some improvement. The DSEIR does not include any analysis to demonstrate that ridesharing information provided through an organization of a relatively small number of neighbors would add any meaningful number of actual ride-shares to the numbers formed through pooling resources available at the employment end of people’s commutes.

Rideshare matching through the homeowners association or the schools likely has even less effectiveness. People who share the burden of transportation of their children to and from school do so because they already know and have come to trust their neighbors, know the children are of similar ages and are compatible, and know they go to the same school on the same schedule. They are not likely to entrust their children to an unknown parent off a matching list that happens to live somewhat nearby. So, it is unlikely that pool matching through schools and homeowners associations would add meaningfully to the school ridesharing that naturally takes place among neighbors so as to create a meaningful reduction in VMT.

Regarding provision of on-site transit opportunities information, it is questionable where this would be placed such that residents would actually see it. A more important question is what added value, if any, this would have in inducing people to use transit more, since virtually all residents have ready access to transit route and schedule information through their computers and smart phones. Finally, transit information isn't helpful in attracting transit use unless effective transit service is available between the immediate area of the Project site and places in the region where people want to go. The DSEIR does not directly address this latter issue. However, it does identify three North County Transit District routes as serving the "Project area", apparently meaning the broad area covered in the traffic study rather than the immediate area of the Project site. These routes are the 303, 309 and 313.

The 313 operates between the San Luis Rey Transit Center several miles to the northeast of the Project site and the Oceanside Transit Center several miles to the southwest of the Project site. It operates at a weekday frequency of once per hour, each direction. The stop closest to the Project site is at Foussat Drive and Mesa, which is about 0.7 miles from the near corner of the site but about a mile from the center of the residential portion of the site. The low frequency of service and distance of the nearest stop from the site make it unlikely residents would rely on this service regardless of promotional information.

The 309 Route is on a north-south alignment from the San Luis Rey transit center northeast of the Project site to the Encinitas transit center several miles to the south. It operates on an approximately 30-minute weekday frequency. The closest stop is at El Camino Real and Mission, about 0.5 miles from the near corner of the Project site but about 0.85 miles from the center of the residential area. The better frequency of service and extent of destinations served makes this a potentially very useful route but the distance to the nearest stop makes the route less than highly attractive.

Route 303 operates on an east-west alignment that arcs to the north, running from the Oceanside transit center to the Vista transit center. It operates on a 15-

minute weekday frequency. The closest stops are at Mission Avenue and Frontier Drive and at Mission Avenue and Foussat Drive. The stops are about 0.2 to 0.25 miles walking distance from the near corners of the Project but about 0.5 miles from the center of the residential portion. The frequency and destinations served likely make this the most useful route to the Project, but more so to the workers in the retail and commercial portions of the Project that are closer to the stops than the residential area, which is what requires the VMT mitigation.

Taken together, transit services that are frequent, closely accessible, and serve important destinations are patronized. Services that are infrequent, and hard to access won't attract ridership no matter how many transit information kiosks are deployed. We note that, unlike the Pavilion at Oceanside project that included a transit center within the project area, the currently proposed Project does not include any such facility. Thus, the proposed Project does not improve transit services in any way. Hence, it does not provide the City with substantial evidence supporting a quantitative reduction in VMT based on transit service.

#### **The DSEIR Fails To Discuss the Findings of Its Appendix D**

The DSEIR fails to discuss the findings of its Appendix D (the "Local Transportation Study") rendering the DSEIR inadequate as an informational document under CEQA. Although SB 743 and related CEQA guidelines make VMT rather than previously relied upon Level-of-Service ("LOS") standards the primary measure of transportation impact, the City of Oceanside General Plan Transportation Element contains LOS standards, a fact that Appendix D admits. Conformance to General Plans and policies *is* a CEQA issue, making the content of ISMND Appendix D subject to review, comment, and requirements for substantive response under CEQA process where nonconformance to General Plan LOS standards is involved. Hence, failure to discuss the findings of Appendix D within the body of the DSEIR renders the DSEIR inadequate as an information document.

In fact, the Appendix D Local Transportation Study identifies the following 9 intersections and 2 road segments where the Project would cause significant effects that, without improvements, would constitute non-compliance with the General Plan and hence, significant CEQA impacts.

#### **Intersections**

- Intersection #4. SR 76 / Canyon Drive
- Intersection #5. SR 76 / Benet Road
- Intersection #6. SR 76 / Airport Road
- Intersection #7. SR76 / Foussat Road
- Intersection #8. SR 76 / Douglas Drive

- Intersection #9. SR76 / Rancho Del Oro Drive
- Intersection #21. Mission Avenue / Rancho Del Oro Drive
- Intersection #24. Foussat Road / Foussat Road (North)
- Intersection #25. Foussat Road / Alex Road

Segments

- Segment #5. SR 76: Airport Road to Foussat Road
- Segment #21. Foussat Road: Alex Road to SR 76

With respect to the intersections, Appendix D finds the Project's obligations to improvements it defines for 6 of the intersections would be met by making fair share payments toward those improvements. At the remaining 3, both intersections of Foussat Road with Alex Road and the intersection of Mission Avenue with Rancho Del Oro Drive, the Project is found to be responsible for the full cost of the improvement. However, there are two problems with this. All six of the intersections where fair share payments are to be made are State Highway 76 intersections under Caltrans jurisdiction. Neither the City nor the applicant can guarantee if or when Caltrans will carry out the improvements or allow them to be constructed. Also, even with the proposed improvements, the intersections of SR 76 with Foussat Road, Douglas Drive and Rancho Del Oro Drive will remain noncompliant with General Plan standards. For these reasons, all of the six State Highway intersections identified should be designated as having significant and unavoidable impacts for non-conformance with the General Plan.

A similar situation exists with regard to Segment # 5, the segment of SR 76 Between Airport Road to Foussat Road. Since improvement of a State Highway under Caltrans jurisdiction cannot be guaranteed, this must be designated a significant and unavoidable impact for non-conformance to the General Plan.

**DSEIR Appendix D Fails To Analyze the Project's Long Term Cumulative Impacts**

The DSEIR only analyzes the Project's current LOS impacts to Year 2020. There is no long-term analysis of cumulative traffic impacts with respect to conformance to Oceanside General Plan Transportation Element plans and policies. The DSEIR Appendix D makes the vague claim at page 81 that the Project was analyzed to Year 2035 in SANDAG Model Series 12, which assumed a similar gross traffic generation on the traffic analysis zones comprising the current Project proposal, implying that this was the basis of the original 2008 EIR that was certified. However, this is false and, seemingly, deliberately misleading. The only thing true in the Appendix D statement is that the SANDAG Model Series 12 included gross trip generation totals for the traffic analysis zones comprising the Project site that were very close to those of the Project currently proposed. However, the SANDAG Model Series 12 results were not relied upon and not yet available when the DEIR and FEIR for the "Pavilion" Project were

Ms. Tara Messing  
Adams Broadwell Joseph & Cardozo  
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prepared in 2008. The Series 12 Model had a baseline of 2008 and its results were not available until years subsequent to publication of the "Pavilion" Project. The original "Pavilion" Project EIR never relied on the results of the Series 12 Model. The Series 12 Model results were never used for a project level environmental analysis of the "Pavilion" project or the subject Project.

Furthermore, the 2035 transportation network in the Series 12 SANDAG Model assumed completion of a project to improve SR 76 from I-5 to Melrose Drive (essentially through the entire Appendix D traffic study area) to include 3 through lanes at mid-intersection segments and 3 through lanes at intersections. This project has been deleted from the Regional Transportation Plan and is unlikely to be completed until post-2050 and, considering shifting priorities in Regional Transportation Plan emphasis, perhaps not ever. Hence, reference to the Series 12 Model runs is irrelevant and misleading.

Additionally, Appendix D at Section 7.3, page 48 states that the current Project traffic analysis relies upon, as a sole concrete reference source, the trip distribution assumed in the 2008 DEIR. The problem with this is that the 2008 project had no residential or resort components as the current Project does, and that these components would have radically different trip patterns than the exclusively commercial project proposed in 2008. This, and the issue of why the DSEIR would rely on an obsolete trip distribution substantially irrelevant to some of the Project's currently proposed land uses, and one that is inconsistent from the SANDAG Series 13 Model relied upon in the DSEIR's VMT analysis, demonstrates potentially new significant impacts from this Project that were inadequately analyzed in the DSEIR.

### **Conclusion**

Given the above, the DSEIR is inadequate, must be extensively revised and recirculated in Draft status.

Sincerely,

Smith Engineering & Management  
A California Corporation

Ms. Tara Messing  
Adams Broadwell Joseph & Cardozo  
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Daniel T. Smith Jr., P.E.  
President



# SMITH ENGINEERING & MANAGEMENT

## **DANIEL T. SMITH, Jr.** **President**

### **EDUCATION**

Bachelor of Science, Engineering and Applied Science, Yale University, 1967  
Master of Science, Transportation Planning, University of California, Berkeley, 1968

### **PROFESSIONAL REGISTRATION**

California No. 21913 (Civil)                      Nevada No. 7969 (Civil, Ret.)    Washington No. 29337 (Civil, Ret.)  
California No. 938 (Traffic)                      Arizona No. 22131 (Civil, Ret.)

### **PROFESSIONAL EXPERIENCE**

Smith Engineering & Management, 1993 to present. President.  
DKS Associates, 1979 to 1993. Founder, Vice President, Principal Transportation Engineer.  
De Leuw, Cather & Company, 1968 to 1979. Senior Transportation Planner.  
Personal specialties and project experience include:

**Litigation Consulting.** Provides consultation, investigations and expert witness testimony in highway design, transit design and traffic engineering matters including condemnations involving transportation access issues; traffic accidents involving highway design or traffic engineering factors; land use and development matters involving access and transportation impacts; parking and other traffic and transportation matters.

**Urban Corridor Studies/Alternatives Analysis.** Principal-in-charge for State Route (SR) 102 Feasibility Study, a 35-mile freeway alignment study north of Sacramento. Consultant on I-280 Interstate Transfer Concept Program, San Francisco, an AA/EIS for completion of I-280, demolition of Embarcadero freeway, substitute light rail and commuter rail projects. Principal-in-charge, SR 238 corridor freeway/expressway design/environmental study, Hayward (Calif.). Project manager, Sacramento Northeast Area multi-modal transportation corridor study. Transportation planner for I-80N West Terminal Study, and Harbor Drive Traffic Study, Portland, Oregon. Project manager for design of surface segment of Woodward Corridor LRT, Detroit, Michigan. Directed staff on I-80 National Strategic Corridor Study (Sacramento-San Francisco), US 101-Sonoma freeway operations study, SR 92 freeway operations study, I-880 freeway operations study, SR 152 alignment studies, Sacramento RTD light rail systems study, Tasman Corridor LRT AA/EIS, Fremont-Warm Springs BART extension plan/EIR, SRs 70/99 freeway alternatives study, and Richmond Parkway (SR 93) design study.

**Area Transportation Plans.** Principal-in charge for transportation element of City of Los Angeles General Plan Framework, shaping nations largest city two decades into 21st century. Project manager for the transportation element of 300-acre Mission Bay development in downtown San Francisco. Mission Bay involves 7 million gsf office/commercial space, 8,500 dwelling units, and community facilities. Transportation features include relocation of commuter rail station; extension of MUNI-Metro LRT; a multi-modal terminal for LRT, commuter rail and local bus; removal of a quarter mile elevated freeway; replacement by new ramps and a boulevard; an internal roadway network overcoming constraints imposed by an internal tidal basin; freeway structures and rail facilities; and concept plans for 20,000 structured parking spaces. Principal-in-charge for circulation plan to accommodate 9 million gsf of office/commercial growth in downtown Bellevue (Wash.). Principal-in-charge for 64 acre, 2 million gsf multi-use complex for FMC adjacent to San Jose International Airport. Project manager for transportation element of Sacramento Capitol Area Plan for the state governmental complex, and for Downtown Sacramento Redevelopment Plan. Project manager for Napa (Calif.) General Plan Circulation Element and Downtown Riverfront Redevelopment Plan, on parking program for downtown Walnut Creek, on downtown transportation plan for San Mateo and redevelopment plan for downtown Mountain View (Calif.), for traffic circulation and safety plans for California cities of Davis, Pleasant Hill and Hayward, and for Salem, Oregon.

TRAFFIC • TRANSPORTATION • MANAGEMENT

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**Transportation Centers.** Project manager for Daly City Intermodal Study which developed a \$7 million surface bus terminal, traffic access, parking and pedestrian circulation improvements at the Daly City BART station plus development of functional plans for a new BART station at Colma. Project manager for design of multi-modal terminal (commuter rail, light rail, bus) at Mission Bay, San Francisco. In Santa Clarita Long Range Transit Development Program, responsible for plan to relocate system's existing timed-transfer hub and development of three satellite transfer hubs. Performed airport ground transportation system evaluations for San Francisco International, Oakland International, Sea-Tac International, Oakland International, Los Angeles International, and San Diego Lindberg.

**Campus Transportation.** Campus transportation planning assignments for UC Davis, UC Berkeley, UC Santa Cruz and UC San Francisco Medical Center campuses; San Francisco State University; University of San Francisco; and the University of Alaska and others. Also developed master plans for institutional campuses including medical centers, headquarters complexes and research & development facilities.

**Special Event Facilities.** Evaluations and design studies for football/baseball stadiums, indoor sports arenas, horse and motor racing facilities, theme parks, fairgrounds and convention centers, ski complexes and destination resorts throughout western United States.

**Parking.** Parking programs and facilities for large area plans and individual sites including downtowns, special event facilities, university and institutional campuses and other large site developments; numerous parking feasibility and operations studies for parking structures and surface facilities; also, resident preferential parking .

**Transportation System Management & Traffic Restraint.** Project manager on FHWA program to develop techniques and guidelines for neighborhood street traffic limitation. Project manager for Berkeley, (Calif.), Neighborhood Traffic Study, pioneered application of traffic restraint techniques in the U.S. Developed residential traffic plans for Menlo Park, Santa Monica, Santa Cruz, Mill Valley, Oakland, Palo Alto, Piedmont, San Mateo County, Pasadena, Santa Ana and others. Participated in development of photo/radar speed enforcement device and experimented with speed humps. Co-author of Institute of Transportation Engineers reference publication on neighborhood traffic control.

**Bicycle Facilities.** Project manager to develop an FHWA manual for bicycle facility design and planning, on bikeway plans for Del Mar, (Calif.), the UC Davis and the City of Davis. Consultant to bikeway plans for Eugene, Oregon, Washington, D.C., Buffalo, New York, and Skokie, Illinois. Consultant to U.S. Bureau of Reclamation for development of hydraulically efficient, bicycle safe drainage inlets. Consultant on FHWA research on effective retrofits of undercrossing and overcrossing structures for bicyclists, pedestrians, and handicapped.

## MEMBERSHIPS

Institute of Transportation Engineers      Transportation Research Board

## PUBLICATIONS AND AWARDS

*Residential Street Design and Traffic Control*, with W. Homburger *et al.* Prentice Hall, 1989.

Co-recipient, Progressive Architecture Citation, *Mission Bay Master Plan*, with I.M. Pei WRT Associated, 1984.

*Residential Traffic Management, State of the Art Report*, U.S. Department of Transportation, 1979.

*Improving The Residential Street Environment*, with Donald Appleyard *et al.*, U.S. Department of Transportation, 1979.

*Strategic Concepts in Residential Neighborhood Traffic Control*. International Symposium on Traffic Control Systems, Berkeley, California, 1979.

*Planning and Design of Bicycle Facilities: Pitfalls and New Directions*, Transportation Research Board, Research Record 570, 1976.

Co-recipient, Progressive Architecture Award, *Livable Urban Streets, San Francisco Bay Area and London*, with Donald Appleyard, 1979.

**EXHIBIT C**

September 30, 2021

Ms. Tara C. Messing  
Adams Broadwell Joseph & Cardozo  
601 Gateway Boulevard, Suite 1000  
South San Francisco, CA 94080

**Subject: Comments on the Draft Supplemental Environmental Impact Report for the Ocean KAMP Project**

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Dear Ms. Messing:

This letter contains my comments on the Draft Supplemental Environmental Impact Report (“DSEIR”) prepared by the City of Oceanside (“City”) for the Ocean KAMP Project (“Project” or “currently proposed Project”). The DSEIR supplements some of the analysis presented in the Final EIR for the Pavilion at Oceanside Project (“Pavilion FEIR”), which was certified by the City in 2008. O’Side Partnership, LLC, (“Applicant”) proposes development within the 92.3-acre Pavilion at Oceanside Project site and an additional 1.95-acre City-owned parcel located at the northeastern corner of Foussat Road and SR 76. Whereas the Pavilion at Oceanside Project (“prior project”) involved commercial development, the currently proposed Project involves development of a mixed-use California lifestyle resort with associated shopping, retail, commercial and recreational opportunities, interspersed with residential and open space uses.

I am an environmental biologist with 28 years of professional experience in wildlife biology and natural resources management. I have served as a biological resources expert for over 150 projects in California. My experience and scope of work in this regard has included assisting various clients with evaluations of biological resource issues, reviewing environmental compliance documents prepared pursuant to the California Environmental Quality Act (“CEQA”) and the National Environmental Policy Act (“NEPA”), and submitting written comments in response to CEQA and NEPA documents. My work has included the preparation of written and oral testimony for the California Energy Commission, CPUC, and Federal courts. My educational background includes a B.S. in Resource Management from the University of California at Berkeley, and a M.S. in Wildlife and Fisheries Science from the Pennsylvania State University. A copy of my curriculum vitae is attached hereto.

The comments herein are based on my review of the environmental documents prepared for the Project, a review of scientific literature pertaining to biological resources known to occur in the Project area, my experience with other projects in San Diego County, and the knowledge and experience I have acquired during my 28-year career in the field of natural resources management.

## IMPACTS TO WETLANDS

According to the Pavilion FEIR, the prior project would directly impact 0.73 acre of jurisdictional wetlands and wetland habitats.<sup>1</sup> However, according to the DSEIR, the Project would impact only 0.57 acre of wetlands and wetland habitats.<sup>2</sup> The DSEIR fails to explain this discrepancy, although it notes: “[w]etland acreages have been updated to reflect the current permitting process outlined in BIO-13 below.”<sup>3</sup> This statement is confusing because BIO-13 does not discuss the “current permitting process,” nor does it explain: (a) the reduction in wetland resources at the Project site, or (b) how the current permitting process is different from the one in effect when the Pavilion FEIR was certified. This deficiency impairs the public’s ability to understand the Project’s impacts on wetland resources and the sufficiency of the mitigation proposed in BIO-2.

## EDGE EFFECTS

The Pavilion FEIR concluded that indirect impacts caused by “edge effects” would be potentially significant.<sup>4</sup> The DSEIR briefly discusses the edge effects that were evaluated in the Pavilion FEIR.<sup>5</sup> However, the DSEIR does not discuss or analyze how edge effects associated with the currently proposed Project might result in new significant impacts as compared to the prior project. Instead, the DSEIR merely states that all biological resource issues would be within the scope of impacts analyzed in the Pavilion FEIR.<sup>6</sup> As explained in the subsequent sections, there is substantial evidence that changes to the Project (e.g., inclusion of residential development) would: (a) generate new, potentially significant edge effects, and (b) substantially increase the severity of the edge effects identified in the Pavilion FEIR.

## Argentine Ant

The Argentine ant (an exotic, invasive species) has severe, adverse effects on native biota.<sup>7</sup> Argentine ants may be especially destructive in conservation areas intended to protect rare species and natural ecosystem functions.<sup>8</sup>

The Pavilion FEIR acknowledged: “residential uses usually introduce Argentine ants (*Linepithema humile*) to local habitats, which could have adverse consequences for native ant species and animals that feed on them.”<sup>9</sup> However, the City concluded the issue did not warrant further analysis (or mitigation) because “*the project does not include any residential uses.*”<sup>10</sup>

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<sup>1</sup> FEIR, pp. S-13 and D-4. See also Helix, 2007 Nov 26. Mitigation Plan for the Pavilion at Oceanside Property. p. 2.

<sup>2</sup> DSEIR, p. 5.1-8 (BIO-2).

<sup>3</sup> DSEIR, p. 5.1-8.

<sup>4</sup> FEIR, pp. S-13 and -14.

<sup>5</sup> DSEIR, p. 5.1-7.

<sup>6</sup> DSEIR, p. 5.1-1.

<sup>7</sup> City of Oceanside. 2010. Final Oceanside Subarea Plan, p. 7-17.

<sup>8</sup> Boser CL, Hanna C, Faulkner KR, Cory C, Randall JM, Morrison SA. 2014. Argentine Ant Management in Conservation Areas: Results of a Pilot Study. Monographs of the Western North American Naturalist 7:518–530.

<sup>9</sup> FEIR, Appendix C (Biological Resources Report), p. 29.

<sup>10</sup> *Ibid.* [emphasis added].

Natural areas along riparian corridors are highly susceptible to colonization by Argentine ants because riparian areas provide Argentine ants with the moisture they require.<sup>11</sup> Residential development facilitates the spread of Argentine ant populations because it creates landscape features (e.g., potted plants, walkway bricks or stones) that provide favorable microclimates for Argentine ants.<sup>12</sup> In addition, human dwellings provide Argentine ants with abundant food and water resources.<sup>13</sup> The combination of these habitat elements, which were largely (or entirely) absent from the prior project, provide high quality habitat for Argentine ants and enable them to occur at high densities and spread rapidly.<sup>14</sup>

The prior project included a vegetated swale approximately 9,800 feet long.<sup>15</sup> In contrast, the currently proposed Project includes: (a) five vegetated biofiltration basins with impermeable liners totaling 101,000 square feet, and (b) grass swales in residential areas where there is available space.<sup>16</sup> This represents a 91,000 square foot increase in storm water retention features<sup>17</sup> that would provide mesic microclimates beneficial to Argentine ants. The new storm water features and residential developments associated with the Project increase the potential that the Project would facilitate invasion of the San Luis Rey River corridor by Argentine Ants—especially because modifications to the Project include construction of a large biofiltration basin and multiple residential units (i.e., Argentine ant habitat) in close proximity to the San Luis Rey River corridor.<sup>18</sup> The DSEIR improperly omitted the above analysis and also failed to disclose and mitigate this potentially significant impact.

### **Predation by Domestic Cats**

Domestic cats kill millions of birds every year and are considered primarily responsible for the extinction of 33 bird species since the 1600s.<sup>19</sup> Unlike wild predators, domestic cat populations are maintained far above carrying capacity by nutritional subsidies from their owners.<sup>20</sup> Because domestic cats are recreational hunters, they continue to kill prey species even when they are well fed and the populations of prey species are low.<sup>21</sup>

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<sup>11</sup> Fitzgerald K, Gordon DM. 2012. Effects of Vegetation Cover, Presence of a Native Ant Species, and Human Disturbance on Colonization by Argentine Ants. *Conservation Biology* 26(3):525-538.

<sup>12</sup> UC Riverside Center for Invasive Species Research. 2021. Argentine Ant [web page]. Available at: <<https://cisir.ucr.edu/invasive-species/argentine-ant>>. (Accessed Sep 27, 2021).

<sup>13</sup> *Ibid.*

<sup>14</sup> *Ibid.* See also Fitzgerald K, Gordon DM. 2012. Effects of Vegetation Cover, Presence of a Native Ant Species, and Human Disturbance on Colonization by Argentine Ants. *Conservation Biology* 26(3):525-538.

<sup>15</sup> DSEIR, Table 2-1.

<sup>16</sup> *Ibid.*

<sup>17</sup> *Ibid.*

<sup>18</sup> DSEIR, Figure 2-3.

<sup>19</sup> Riparian Habitat Joint Venture. 2004. Version 2.0. The riparian bird conservation plan: a strategy for reversing the decline of riparian associated birds in California. California Partners in Flight. p. 93. See also Winter L, Wallace GE. 2006. Impacts of Feral and Free-Ranging Cats on Bird Species of Conservation Concern: A five-state review of New York, New Jersey, Florida, California, and Hawaii. American Bird Conservancy, The Plains, Virginia. Available at: <<https://abcbirds.org/results/publications/#special-reports>>.

<sup>20</sup> Crooks KR, Soule ME. 1999. Mesopredator release and avifaunal extinctions in a fragmented system. *Nature* 400:563-566.

<sup>21</sup> *Ibid.* See also Winter L, Wallace GE. 2006. Impacts of Feral and Free-Ranging Cats on Bird Species of Conservation Concern: A five-state review of New York, New Jersey, Florida, California, and Hawaii. American Bird Conservancy, The Plains, Virginia. Available at: <<https://abcbirds.org/results/publications/#special-reports>>.

Most free-roaming cats kill birds (and other prey species such as lizards and rodents).<sup>22</sup> Some free-roaming domestic cats kill more than 100 animals each year.<sup>23</sup> One well-fed cat that roamed a wildlife experiment station was reported to have killed more than 1,600 animals (mostly small mammals) over 18 months.<sup>24</sup> Even cats that kill fewer animals can have a significant impact on native fauna. For example, Crooks and Soulé (1999) examined the effect of domestic cats on scrub-breeding bird diversity in 28 habitat fragments located in coastal, urban San Diego County.<sup>25</sup> On average, each outdoor cat that hunted returned 24 rodents, 15 birds, and 17 lizards to the residence each year.<sup>26</sup> This level of bird predation appeared to be unsustainable.<sup>27</sup> Existing population sizes of some birds do not exceed 10 individuals in small to moderately sized fragments, so even modest increases in predation pressure from cats and other mesopredators, in conjunction with other fragmentation effects, may quickly drive native prey species, especially rare ones, to extinction.<sup>28</sup> Therefore, even if only a few of the residential units developed for the Project would have domestic cats that go outside, those cats could have a significant impact on the California gnatcatcher, least Bell's vireo, and other special-status birds that are present on or around the Project site.

The Pavilion FEIR recognized that cats (and other domestic animals) could cause a significant impact to native wildlife in the project vicinity.<sup>29</sup> However, the City determined that the impact would be avoided because: "[t]he potential for introduction of nuisance animals is limited in this case by the fact that the project does not include any residential uses."<sup>30</sup> Whereas the rationale for the City's determination may have been valid for the prior project, it does not apply to the currently proposed Project. If the potential for introduction of cats is correlated with residential development (as reported in the Pavilion FEIR), then it is reasonable to assume the 700 residential units that would be developed for the proposed Project would introduce at least some free-roaming cats into the surrounding open space areas. As the Pavilion FEIR acknowledged, those cats could cause significant impacts. Indeed, the potential for the currently proposed Project to cause a significant impact to special-status birds and other native wildlife is heightened by the Applicant's plan to construct approximately 146 dwelling units in the lots bordering the biological open space (gnatcatcher dispersal corridor), and approximately 213 dwelling units in the lots bordering the San Luis Rey River corridor.<sup>31</sup> Neither the Pavilion FEIR nor DSEIR incorporates mitigation for this potentially significant impact. As a result, the currently proposed Project introduces a new, potentially significant environmental effect that remains unmitigated.

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<sup>22</sup> *Ibid.*

<sup>23</sup> American Bird Conservancy. 2011. Domestic Cat Predation on Birds and Other Wildlife. 4 pp. Available at: <<http://abcbirds.org/wp-content/uploads/2015/05/CatPredation2011.pdf>>.

<sup>24</sup> *Ibid.*

<sup>25</sup> Crooks KR, Soulé ME. 1999. Mesopredator release and avifaunal extinctions in a fragmented system. *Nature* 400:563-566.

<sup>26</sup> *Ibid.*

<sup>27</sup> *Ibid.*

<sup>28</sup> *Ibid.*

<sup>29</sup> FEIR, Appendix C (Biological Resources Report), pp. 28 and 29.

<sup>30</sup> *Ibid.*

<sup>31</sup> Based on an average density of 25.5 du/ac (DSEIR, Table 2-1) in Lots 1, 2, 5, 6, and 8 (DSEIR, Figure 2-3).

## Avian Collisions

Riparian habitat within the San Luis Rey River corridor supports a diverse and abundant assemblage of birds, including several special-status species (e.g., least Bell's vireo, southwestern willow flycatcher, California coastal gnatcatcher, yellow-breasted chat, and yellow warbler, among others).<sup>32</sup> In addition, the San Luis Rey River corridor provides important "stopover" habitat for birds that migrate along the Pacific Flyway, and at finer spatial scales (e.g., locally and regionally).

Collision with windows is second only to predation by domestic cats as an anthropogenic source of avian mortality.<sup>33</sup> Klem (2009) estimated over one billion birds are killed each year due to collisions with clear and reflective sheet glass in the U.S. alone.<sup>34,35</sup> The visual system of birds is simply not capable of perceiving glass as a physical obstacle.<sup>36</sup> Casualties occur from head trauma after leaving a perch from as little as one meter away in an attempt to reach habitat seen through, or reflected in, clear and tinted panes.<sup>37</sup> There is no window size, building structure, time of day, season of year, or weather conditions during which birds elude the lethal hazards of glass.<sup>38</sup>

Windows kill birds in urban, suburban, and rural settings.<sup>39</sup> All types of birds are susceptible. Potential victims are the fit and unfit of abundant as well as rare, threatened, and endangered species.<sup>40</sup> Scientists have determined that bird mortality caused by collisions with structures is "biologically significant"<sup>41</sup> and that avian mortality from window collisions is contributing to population declines of special-status species and birds in general.<sup>42</sup> In short, glass is an indiscriminate killer that threatens birds wherever birds and windows coexist.<sup>43</sup>

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<sup>32</sup> eBird. 2021. eBird: An online database of bird distribution and abundance [web application]. eBird, Ithaca, New York. Available at: <<http://www.ebird.org>>. (Accessed Sep 28, 2021). See also California Natural Diversity Database. 2021. RareFind 5 [Internet]. California Department of Fish and Wildlife [Sep 3, 2021].

<sup>33</sup> Parkins KL, Elbin SB, Barnes E. 2015. Light, Glass, and Bird-building Collisions in an Urban Park. *Northeastern Naturalist* 22(1):84-94.

<sup>34</sup> Klem D Jr. 2009. Avian Mortality At Windows: The Second Largest Human Source of Bird Mortality on Earth. *Proceedings of the Fourth International Partners in Flight Conference: Tundra to Tropics*. 244-251.

<sup>35</sup> Daniel Klem Jr. is an ornithologist known for his pioneering research into the mortality of birds due to glass windows. He is Sarkis Acopian Professor of Ornithology and Conservation Biology at Muhlenberg College. Dr. Klem has been publishing peer-reviewed studies on bird-window collisions since 1989. See <<http://www.muhlenberg.edu/main/academics/biology/facultystaff/danielklemjr/>>.

<sup>36</sup> Klem D Jr. 2009. Preventing Bird-Window Collisions. *The Wilson Journal of Ornithology* 121(2):314-321.

<sup>37</sup> Klem D Jr. 2009. Avian Mortality At Windows: The Second Largest Human Source of Bird Mortality on Earth. *Proceedings of the Fourth International Partners in Flight Conference: Tundra to Tropics*. 244-251.

<sup>38</sup> *Ibid.*

<sup>39</sup> Klem D Jr. 1990. Collisions Between Birds and Windows: Mortality and Prevention. *Journal of Field Ornithology*. 61(1):120-128.

<sup>40</sup> *Ibid.*

<sup>41</sup> Longcore T, Rich C, Gauthreaux SA Jr. 2005. Scientific Basis to Establish Policy Regulating Communications Towers to Protect Migratory Birds. WT Docket No. 03-187, Federal Communications Commission Notice of Inquiry. Available at: <<https://ecfsapi.fcc.gov/file/6517288491.pdf>>.

<sup>42</sup> Klem D Jr. 2009. Preventing Bird-Window Collisions. *Wilson Journal of Ornithology* 121(2):314-321. See also Klem D Jr. 1990. Collisions Between Birds and Windows: Mortality and Prevention. *Journal of Field Ornithology*. 61(1):120-128.

<sup>43</sup> *Ibid.*

## Causal Factors of Avian Collisions

There are two factors that cause birds to collide with human-built structures. The first is the lighting of structures at night, which “traps” and disorients many species of nocturnal migrants, making them vulnerable to collision with obstructions.<sup>44</sup> Those birds that are not killed outright by impact with lit windows are disoriented by the light and continue to fly around the light source, often to the point of exhaustion (which often leads to death).<sup>45</sup>

The second factor is the presence of windows, which birds in flight either cannot detect, or misinterpret.<sup>46</sup> Almost every type of architectural glass under the right conditions reflects the sky, clouds, or nearby trees and vegetation.<sup>47</sup> Glass that reflects the environment presents birds with the appearance of safe routes, shelter, and possibly food ahead. When birds try to fly to the reflected habitat, they hit the glass.

Resident bird species living alongside humans face a constant threat from human-built structures. Migrating birds, however, face such risks wherever human-built structures occur along their migratory flight path, and thus they are likely more vulnerable than resident birds to collisions and potentially fatal disorientation.<sup>48</sup> Special-status species that migrate to (or through) habitat around the Project site include, but are not limited to, the least Bell’s vireo, southwestern willow flycatcher, yellow-billed cuckoo, yellow-breasted chat, and yellow warbler.<sup>49</sup>

The bulk of bird deaths result when lone, confused birds mistake glass for a safe flight path.<sup>50</sup> During migration, birds make stops to rest and refuel. After landing, these birds make short, low flights near dawn, searching for feeding areas.<sup>51</sup> Thus, they are susceptible to collisions as they ascend, descend, and search for the resources needed to continue their migratory journey. Consequently, night-migrating songbirds<sup>52</sup>—already imperiled by habitat loss and other environmental stressors—face a dual risk, threatened both by illuminated buildings when they fly at night and by daytime glass collisions as they seek food and shelter.<sup>53</sup>

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<sup>44</sup> Ogden LJ. 1996. Collision Course: The Hazards of Lighted Structures and Windows to Migrating Birds. A Special Report for the World Wildlife Fund Canada and the Fatal Light Awareness Program. 45 pp.

<sup>45</sup> *Ibid.*

<sup>46</sup> Klem D Jr. 1990. Collisions Between Birds and Windows: Mortality and Prevention. *Journal of Field Ornithology*. 61(1):120-128. *See also* Klem D Jr. 2009. Preventing Bird-Window Collisions. *Wilson Journal of Ornithology* 121(2):314-321.

<sup>47</sup> San Francisco Planning Department (*and references therein*). 2011. Standards for Bird-Safe Buildings. 42 pp.

<sup>48</sup> Ogden LJ. 1996. Collision Course: The Hazards of Lighted Structures and Windows to Migrating Birds. A Special Report for the World Wildlife Fund Canada and the Fatal Light Awareness Program. 45 pp.

<sup>49</sup> eBird. 2021. eBird: An online database of bird distribution and abundance [web application]. eBird, Ithaca, New York. Available at: <<http://www.ebird.org>>. (Accessed Oct 4, 2021).

<sup>50</sup> Klem D Jr. 1990. Collisions Between Birds and Windows: Mortality and Prevention. *Journal of Field Ornithology*. 61(1):120-128.

<sup>51</sup> Ogden LJ. 1996. Collision Course: The Hazards of Lighted Structures and Windows to Migrating Birds. A Special Report for the World Wildlife Fund Canada and the Fatal Light Awareness Program. 45 pp.

<sup>52</sup> Most songbirds migrate at night.

<sup>53</sup> San Francisco Planning Department (*and references therein*). 2011. Standards for Bird-Safe Buildings. 42 pp.

## Project-Specific Hazards

A poorly designed building can kill hundreds of birds per year.<sup>54</sup> A few variables in particular have proven to be especially lethal to birds. As described below, the currently proposed Project possesses those variables:

1. Buildings with reflective or transparent windows, large windows, or a high percentage of glass.

Birds have been reported to strike two general types of windows: (1) transparent windows, which appear invisible to birds and (2) reflective windows, which mirror the facing habitat.<sup>55</sup> In addition, studies have shown that buildings with large windows or a high percentage of glass kill a disproportionately high number of birds.<sup>56</sup>

The proposed Project would have reflective windows (as discussed previously, almost all windows are reflective). Some of the buildings would have large windows or a high percentage of glass.<sup>57</sup> In contrast, the buildings planned for the prior project would have had few windows, and the majority of the windows would have faced inward towards the center of the development area (i.e., not towards open space habitats).<sup>58</sup>

2. Windowed courtyards and balconies.

Windowed courtyards and balconies can be hazardous to birds, especially if they are heavily planted and have unbroken glazed segments 24 square feet and larger in size.<sup>59</sup> Birds fly down into such places and often try to leave by flying directly towards windows.<sup>60</sup> The proposed Project includes townhomes, apartments, and condominiums that would have “private patio and balcony areas.”<sup>61</sup> Based on the renderings provided in the Development Plan, many (or all) of these patio and balcony areas would have glass windows (or doors) with unbroken glazed segments 24 square feet and larger in size.<sup>62</sup> The buildings proposed for the prior project did not have windowed courtyards or balconies.

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<sup>54</sup> Hager SB, Trudell H, McKay KJ, Crandall SM, Mayer L. 2008. Bird Density and Mortality at Windows. *Wilson Journal of Ornithology* 120(3):550-564.

<sup>55</sup> Gelb Y, Delacretaz N. 2009. Windows and Vegetation: Primary Factors in Manhattan Bird Collisions. *Northeastern Naturalist* 16(3):455-470. *See also* Klem D Jr. 1989. Bird Window Collisions. *The Wilson Bulletin* 101(4):606-620.

<sup>56</sup> Klem D Jr, Farmer CJ, Delacretaz N, Gelb Y, Saenger PG. 2009. Architectural and Landscape Risk Factors Associated with Bird-Glass Collisions in an Urban Environment. *Wilson Journal of Ornithology* 121(1):126-134. *See also* Parkins KL, Elbin SB, Barnes E. 2015. Light, Glass, and Bird-building Collisions in an Urban Park. *Northeastern Naturalist* 22(1):84-94. *See also* Hager SB, Trudell H, McKay KJ, Crandall SM, Mayer L. 2008. Bird Density and Mortality at Windows. *Wilson Journal of Ornithology* 120(3):550-564.

<sup>57</sup> DSEIR, Figures 2-5 and -6. *See also* DSEIR, Appendix B, pp. 5 and 15 (images). *See also* DSEIR, p. 2-7: “[p]rimary wall features [of the resort structure] include glass, metal trimming and wood elements with notable striation.”

<sup>58</sup> FEIR, p. 46 and Figures III.B-11 and -12.

<sup>59</sup> San Francisco Planning Department (*and references therein*). 2011. Standards for Bird-Safe Buildings. 42 pp.

<sup>60</sup> *Ibid.*

<sup>61</sup> DSEIR, pp. 2-8 and -9.

<sup>62</sup> DSEIR, Appendix B, pp. 14 through 17.

### 3. Buildings with windows located adjacent to extensive vegetation.

Numerous studies have provided evidence that buildings with windows adjacent to extensive vegetation kill numerous birds.<sup>63</sup> Buildings that have windows at lower stories are the most dangerous because those windows are at or below canopy height and are more likely to reflect trees and other landscape features that attract birds.<sup>64</sup> In suburban areas, buildings with these features have been documented to kill an average of 30 birds per year (per building).<sup>65</sup> This combination may be even more lethal in urban areas. Studies of Manhattan structures with large swaths of windows adjacent to large open spaces have recorded well over 100 collisions per year (per structure).<sup>66</sup>

Several of buildings associated with the proposed Project would have windows (or architectural glass) adjacent to extensive vegetation.<sup>67</sup> In addition, the proposed Commercial Area would have: (a) a 3.5-foot-high, 240-foot-long glass guardrail, and (b) 6-foot-high glass fences that would extend over 2,300 linear feet.<sup>68</sup> These features would be located near vegetation attractive to birds,<sup>69</sup> constitute a potentially significant collision hazard to birds, and were not part of the prior project.

Although the prior project included vegetation (in the form of landscaping), only a minimal amount of landscaping was proposed adjacent to windows.<sup>70</sup> In contrast, the currently proposed Project includes extensive landscaping near windows (or architectural glass) and would increase the overall landscaped area by approximately 93% percent (compared to the prior project).<sup>71</sup>

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<sup>63</sup> San Francisco Planning Department (*and references therein*). 2011. Standards for Bird-Safe Buildings. 42 pp. *See also* Gelb Y, Delacretaz N. 2009. Windows and Vegetation: Primary Factors in Manhattan Bird Collisions. *Northeastern Naturalist* 16(3):455-470. *See also* Klem D Jr, Farmer CJ, Delacretaz N, Gelb Y, Saenger PG. 2009. Architectural and Landscape Risk Factors Associated with Bird-Glass Collisions in an Urban Environment. *Wilson Journal of Ornithology* 121(1):126-134.

<sup>64</sup> *Ibid.*

<sup>65</sup> Klem D Jr. 1990. Collisions Between Birds and Windows: Mortality and Prevention. *Journal of Field Ornithology*. 61(1):120-128. *See also* O'Connell TJ. 2001. Avian Window Strike Mortality at a Suburban Office Park. *The Raven* 72(2):141-149.

<sup>66</sup> Gelb Y, Delacretaz N. 2009. Windows and Vegetation: Primary Factors in Manhattan Bird Collisions. *Northeastern Naturalist* 16(3):455-470.

<sup>67</sup> *See photos and architectural renderings in DSEIR, Appendix B (Development Plan). See also DSEIR, Figure 2-5.*

<sup>68</sup> DSEIR, Figure 2-8.

<sup>69</sup> DSEIR, Appendix B, pp. 2 through 5 (photos and renderings).

<sup>70</sup> FEIR, pp. 11, 12, and Figures III.B-10 through -16.

<sup>71</sup> Table 2-1 in the DSEIR reports a 16.8% increase in landscaped area. However, this appears to be a mathematical error. For the Pavilion at Oceanside Project, 18% of 92.3 acres equates to a landscaped area of 16.6 acres. For the proposed Project, 34% of 94.25 acres equates to a landscaped area of 32.0 acres.

4. Windows adjacent to open spaces one hectare (2.47 acres) or greater in size.

Buildings with large windows facing an open space area are especially lethal to birds.<sup>72</sup> Several of the buildings associated with the proposed Project would have windows (or architectural glass) adjacent to open space areas. Specifically:

- a) The residential buildings along the Project's eastern boundary would be immediately adjacent to four acres of biological open space,<sup>73</sup> which are intended to function as a wildlife movement corridor and linkage for sensitive avian species.<sup>74</sup> The Pavilion at Oceanside Project included four commercial buildings near the eastern boundary of the site. However, the buildings were setback from the biological open space and were buffered by a parking lot and truck docks.<sup>75</sup> In addition, the buildings faced west and therefore had few (if any) windows facing the biological open space.<sup>76</sup>
- b) Residential buildings in Lots 1 and 2 would be approximately 120 feet from riparian vegetation along the San Luis Rey River.<sup>77</sup> The prior project did not contain any buildings that close to the river corridor, and the buildings in the vicinity of the river corridor had few (if any) windows facing habitat associated with the river.<sup>78</sup>
- c) Although the DSEIR does not provide a detailed site plan depicting orientation of the proposed residential buildings, one can assume the buildings would have windows facing the adjacent open space areas (i.e., San Luis Rey River and biological open space). This combination of glass in close proximity to habitat could result in a substantial number of bird kills.

The population sizes of some special-status species are so low that they cannot sustain any additive mortality (i.e., the local population will go extinct).<sup>79</sup> This is especially true for species

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<sup>72</sup> Gelb Y, Delacretaz N. 2009. Windows and Vegetation: Primary Factors in Manhattan Bird Collisions. *Northeastern Naturalist* 16(3):455-470. *See also* San Francisco Planning Department (*and references therein*). 2011. *Standards for Bird-Safe Buildings*. 42 pp.

<sup>73</sup> DSEIR, Appendix B, p. 13: "[t]he buildings proposed to be constructed along the project's eastern boundary would be approximately 200 feet from existing single-family residential development." A 100-foot-wide transmission line corridor is located immediately adjacent to the Project site (to the west) and residential development (to the east). The proposed Project includes preserving a 100-foot-wide strip of open space next to the transmission line corridor to create a 200-foot-wide movement corridor for the California gnatcatcher and other wildlife. Thus, if the proposed buildings would be 200 feet from the existing single-family residential development, they would be located along the border of the open space (wildlife corridor).

<sup>74</sup> DSEIR, p. 2-11.

<sup>75</sup> FEIR, Figures IV.G-3 and -4.

<sup>76</sup> *Ibid.* *See also* FEIR, p. 46 ("the majority of the windows would face inward toward the center of the development area."). Moreover, the three "Mini-Anchor" buildings had truck docks on the east side of the buildings and presumably had few windows facing the biological open space area because windows are incompatible with the design of truck docks.

<sup>77</sup> DSEIR, Figure 2-3.

<sup>78</sup> FEIR, p. 46 ("the majority of the windows would face inward toward the center of the development area.").

<sup>79</sup> Klem D Jr. 1990. Collisions between birds and windows: mortality and prevention. *Journal of Field Ornithology* 61:120-128. *See also* Longcore T, Rich C, Mineau P, et al. 2012. An Estimate of Avian Mortality at Communication Towers in the United States and Canada. *PLoS One* 7(4):e34025.

such as the least Bell's vireo, which rely on small remnant patches of habitat in urban areas.<sup>80</sup> Thus, the increase in the avian collision hazard posed by the proposed Project uses and design features represents a substantially more severe significant impact on special-status birds than shown in the Pavilion FEIR. Due to the issues described above, the City must analyze the avian collision hazard as a potentially significant impact, and it must provide adequate mitigation.

### **Invasive Species**

The Pavilion FEIR recognized the threat of non-native plants and the potential for the Project to facilitate their invasion. The FEIR states:

“Non-native plants introduced by project landscaping and/or from disturbance during grading can be highly invasive and can out-compete native vegetation, reducing habitat values. Non-native vegetation can also increase fire risk, change ground and surface water levels, and adversely affect wildlife dependent on the native habitat.”<sup>81</sup>

As mitigation, the Pavilion FEIR incorporated measure BIO-7, which states: “[l]andscaping within the development area shall avoid the use of invasive non-native plants, detailed in Table 5-5 of the draft HCP and/or the California Invasive Plant Inventory.” According to the DSEIR, the terms of BIO-7 apply to the currently proposed Project.

Table 2-4 in the DSEIR provides a list of plant species that comprise the conceptual landscape palette for the proposed Project, which would nearly double the overall landscaped area as compared to the prior project. Several of the plants listed in Table 2-4 are in the California Invasive Plant Inventory:<sup>82</sup>

- *Washingtonia robusta*
- *Carex pendula*
- *Myoporum* sp.<sup>83</sup>
- *Pittosporum* sp.<sup>84</sup>
- *Cynodon dactylon* 'Tifgreen'

As a result, the City must provide a revised landscape palette for the Project. In addition, the DSEIR needs to discuss what mechanisms (if any) would prevent the Project's residences (or property managers) from planting invasive species after development of the Project is complete.

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<sup>80</sup> Riparian Habitat Joint Venture. 2004. Version 2.0. The riparian bird conservation plan: a strategy for reversing the decline of riparian associated birds in California. California Partners in Flight. p. 13.

<sup>81</sup> FEIR, p. S-8.

<sup>82</sup> See <<https://www.cal-ipc.org/plants/inventory/>>.

<sup>83</sup> The DSEIR needs to identify the species. *Myoporum laetum* is an invasive species.

<sup>84</sup> The DSEIR needs to identify the species. *Pittosporum undulatum* is an invasive species.

## Night Lighting

Artificial light that alters the natural patterns of light and dark in ecosystems is termed “ecological light pollution.” This is different from the broad-scale phenomenon “astronomical light pollution,” whereby stars and other celestial bodies are washed out by light that is either directed or reflected upward.<sup>85</sup>

Ecological light pollution has demonstrable effects on the behavioral and population ecology of organisms, with serious implications on community ecology.<sup>86</sup> The Pavilion FEIR identified night-lighting as a potentially significant impact and incorporated mitigation measure BIO-12. BIO-12 states: “[l]ighting within the project area adjacent to the San Luis Rey River shall be selectively placed, directed away from the river, and of the lowest illumination possible for human safety.” The City has concluded that this measure would prevent night-lighting associated with the currently proposed Project from having a significant impact on wildlife. There are two interrelated problems with the City’s conclusion:

First, the DSEIR fails to discuss how revisions to the Project would affect: (a) the height and abundance of lights at the Project site; (b) the types of lights that will be installed; (c) the luminosity of the bulbs; and (d) the location and density of light fixtures. This information is essential to evaluating Project impacts, because effects to wildlife due to night lighting are dependent on the *illumination* (light incident per unit area), *intensity* (the number of photons per unit area) and *spectral content* (expressed by wavelength) of the lights. At a minimum, the Applicant’s proposal to construct residential units in the immediate vicinity of the San Luis Rey River will increase the amount of ecological light pollution in the river corridor.<sup>87</sup>

Second, there are no quantitative standards for BIO-12, which makes efficacy of the mitigation uncertain. For example, the DSEIR fails to identify the illumination levels that would be required for human safety. This issue is exacerbated by the DSEIR’s suggestion that night-lighting would be driven by aesthetics, rather than the need to minimize impacts to wildlife. For example, the DSEIR states:

“The proposed commercial and residential land uses would introduce new sources of light. Site lighting would incorporate a scale and aesthetic *to complement the overall character* of the Ocean KAMP development. Street lighting would be utilized to provide a safe community, but also to *enhance neighborhood character*. All lighting standards would be hooded LED lighting and designed to prevent light spillover.”<sup>88</sup>

Due to changes in the development plan and proposed uses of the site, the lighting plan for the proposed Project will differ from the one for the prior project. The City’s failure to provide a

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<sup>85</sup> Longcore T, Rich C. 2004. Ecological Light Pollution. *Frontiers in Ecology and the Environment* 2:191-198.

<sup>86</sup> *Ibid.*

<sup>87</sup> A parking lot had been planned for this area. Presumably, night-lighting requirements for human safety are greater around residential buildings than a parking lot (especially if the nearby businesses are closed at night). Even if this assumption is false, the amount of night-lighting will be substantially greater due to light being emitted from inside the residences.

<sup>88</sup> DSEIR, pp. 4.1-7 and -8. [emphasis added].

lighting plan precludes the ability to validate the City's conclusion that, despite significant revisions to the development plan, no additional mitigation is needed to prevent significant impacts on wildlife (due to night-lighting).

### **Brown-headed Cowbird**

Nest parasitism by the brown-headed cowbird (a species that is not indigenous to California) is one of the primary reasons for the decline of the least Bell's vireo, a federally and state endangered species.<sup>89</sup> Because a parasitized nest rarely fledges any vireo young, nest parasitism of least Bell's vireo results in drastically reduced nest success.<sup>90</sup>

Cowbirds are frequently associated with anthropogenic features, including suburban areas with lawns, bird feeders, parks, picnic areas, and internal and external edges created by development.<sup>91</sup> These features are known to support and attract cowbirds by providing food resources.<sup>92</sup> In contrast to the prior project, the proposed Project would result in the creation of 700 residential units and 15 acres of recreational space (including neighborhood parks)<sup>93</sup> in close proximity to habitat occupied by the least Bell's vireo.<sup>94</sup> These features would facilitate an increase in the size of the cowbird population, with concomitant impacts on the least Bell's vireo population.

### **CONCLUSION**

The proposed Project entails substantial revisions to the previously approved Pavilion at Oceanside Project. The type and increased severity of indirect impacts (edge effects) on sensitive biological resources is influenced by the development plan, various architectural (or design) elements, and how the site would be used (e.g., residential in addition to commercial). The DSEIR does not deny that the currently proposed Project would modify these variables. However, instead of analyzing how modifications to the Project would alter edge effects, the DSEIR jumped to the conclusion that there would be no new edge effects, and that the mitigation incorporated into the Pavilion FEIR would be sufficient to reduce edge effects to less-than-significant levels. The conclusion is not supported by evidence or analysis. As explained above, the currently proposed Project would generate new edge effects, and substantially increase the

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<sup>89</sup> Lynn S, Kus B. 2011. Distribution, Abundance, and Breeding Activities of the Least Bell's Vireo along the San Diego River, California. 2011 Annual Data Summary. USGS Western Ecological Research Center, San Diego Field Station. 59 pp.

<sup>90</sup> Riparian Habitat Joint Venture. 2004. Version 2.0. The riparian bird conservation plan: a strategy for reversing the decline of riparian associated birds in California. California Partners in Flight. p. 19.

<sup>91</sup> U.S. Department of the Interior, Bureau of Reclamation. 2004. Brown-headed Cowbird Management Techniques Manual. p. 11.

<sup>92</sup> Riparian Habitat Joint Venture. 2004. Version 2.0. The riparian bird conservation plan: a strategy for reversing the decline of riparian associated birds in California. California Partners in Flight. p. 76.

<sup>93</sup> DSEIR, Table 2-1.

<sup>94</sup> Ferree K, Kus BE. 2008. Least Bell's vireos and southwestern willow flycatchers at the San Luis Rey River Flood Control Project area in San Diego County, California: breeding activities and habitat use. 2007 Annual Data Summary. Prepared for RECON Environmental, Inc., San Diego, California. *See also* eBird. 2021. eBird: An online database of bird distribution and abundance [web application]. eBird, Ithaca, New York. Available at: <<http://www.ebird.org>>. (Accessed Sep 28, 2021).

severity of edge effects identified in the Pavilion FEIR. Consequently, the mitigation measures that were deemed sufficient for the prior project, are not sufficient for the currently proposed Project. Indeed, the Pavilion FEIR concluded that some potentially significant edge effects required no mitigation merely because the project did not include any residential uses. Because the DSEIR does not incorporate additional mitigation, the measures that were incorporated into the Pavilion FEIR fail to mitigate the currently proposed Project's indirect impacts to less-than-significant levels. In addition, edge effects associated with the proposed Project would compromise the ecological functions of the on-site avian dispersal corridor and may create an ecological trap.<sup>95</sup>

Sincerely,



Scott Cashen, M.S.  
Senior Biologist

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<sup>95</sup> An "ecological trap" occurs when an organism is lured into habitat where it either dies or has reduced reproductive output. See Robertson BA, Rehage JS, Sih A. 2013. Ecological novelty and the emergence of evolutionary traps. *Trends in Ecology & Evolution* 28:552-560.

**Scott Cashen, M.S.**  
**Senior Wildlife Biologist**

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Scott Cashen has 28 years of professional experience in natural resources management. During that time he has worked as a field biologist, forester, environmental consultant, and instructor of Wildlife Management. Mr. Cashen focuses on CEQA/NEPA compliance issues, endangered species, scientific field studies, and other topics that require a high level of scientific expertise.

Mr. Cashen has knowledge and experience with numerous taxa, ecoregions, biological resource issues, and environmental regulations. As a biological resources expert, Mr. Cashen is knowledgeable of the various agency-promulgated guidelines for field surveys, impact assessments, and mitigation. Mr. Cashen has led field investigations on several special-status species, including ones focusing on the yellow-legged frog, red-legged frog, desert tortoise, steelhead, burrowing owl, California spotted owl, northern goshawk, willow flycatcher, Peninsular bighorn sheep, red panda, and various forest carnivores.

Mr. Cashen is a recognized expert on the environmental impacts of renewable energy development. He has been involved in the environmental review process of over 100 solar, wind, biomass, and geothermal energy projects. Mr. Cashen's role in this capacity has encompassed all stages of the environmental review process, from initial document review through litigation support. Mr. Cashen provided expert witness testimony on several of the Department of the Interior's "fast-tracked" renewable energy projects. His testimony on those projects helped lead agencies develop project alternatives and mitigation measures to reduce environmental impacts associated with the projects.

Mr. Cashen was a member of the independent scientific review panel for the Quincy Library Group project, the largest community forestry project in the United States. As a member of the panel, Mr. Cashen was responsible for advising the U.S. Forest Service on its scientific monitoring program, and for preparing a final report to Congress describing the effectiveness of the Herger-Feinstein Forest Recovery Act of 1998.

**AREAS OF EXPERTISE**

- CEQA, NEPA, and Endangered Species Act compliance issues
- Comprehensive biological resource assessments
- Endangered species management
- Renewable energy development
- Scientific field studies, grant writing and technical editing

**EDUCATION**

M.S. Wildlife and Fisheries Science - The Pennsylvania State University (1998)

*Thesis: Avian Use of Restored Wetlands in Pennsylvania*

B.S. Resource Management - The University of California, Berkeley (1992)

## **PROFESSIONAL EXPERIENCE**

### **Litigation Support / Expert Witness**

Mr. Cashen has served as a biological resources expert for over 125 projects subject to environmental review under the California Environmental Quality Act (CEQA) and/or the National Environmental Policy Act (NEPA). As a biological resources expert, Mr. Cashen reviews CEQA/NEPA documents and provides his clients with an assessment of biological resource issues. He then submits formal comments on the scientific and legal adequacy of the project's environmental documents (e.g., Environmental Impact Report). If needed, Mr. Cashen conducts field studies to generate evidence for legal testimony, or he can obtain supplemental testimony from his deep network of species-specific experts. Mr. Cashen has provided written and oral testimony to the California Energy Commission, California Public Utilities Commission, and U.S. district courts. His clients have included law firms, non-profit organizations, and citizen groups.

### **REPRESENTATIVE EXPERIENCE**

#### **Solar Energy**

- Abengoa Mojave Solar Project
- Avenal Energy Power Plant
- Beacon Solar Energy Project
- Blythe Solar Power Project
- Calico Solar Project
- California Flats Solar Project
- Calipatria Solar Farm II
- Carrizo Energy Solar Farm
- Catalina Renewable Energy
- Fink Road Solar Farm
- Genesis Solar Energy Project
- Heber Solar Energy Facility
- Imperial Valley Solar Project
- Ivanpah Solar Electric Generating
- Maricopa Sun Solar Complex
- McCoy Solar Project
- Mt. Signal and Calexico Solar
- Panoche Valley Solar
- San Joaquin Solar I & II
- San Luis Solar Project
- Stateline Solar Project
- Solar Gen II Projects
- SR Solis Oro Loma
- Vestal Solar Facilities
- Victorville 2 Power Project
- Willow Springs Solar

#### **Geothermal Energy**

- Casa Diablo IV Geothermal
- East Brawley Geothermal
- Mammoth Pacific 1 Replacement
- Orni 21 Geothermal Project
- Western GeoPower Plant

#### **Wind Energy**

- Catalina Renewable Energy
- Ocotillo Wind Energy Project
- SD County Wind Energy
- Searchlight Wind Project
- Shu'luuk Wind Project
- Tres Vaqueros Repowering Project
- Tule Wind Project
- Vasco Winds Relicensing Project

#### **Biomass Facilities**

- CA Ethanol Project
- Colusa Biomass Project
- Tracy Green Energy Project

#### **Other Development Projects**

- Cal-Am Desalination Project
- Carnegie SVRA Expansion Project
- Lakeview Substation Project
- Monterey Bay Shores Ecoresort
- Phillips 66 Rail Spur
- Valero Benecia Crude By Rail
- World Logistics Center

## **Project Management**

Mr. Cashen has managed several large-scale wildlife, forestry, and natural resource management projects. Many of the projects have required hiring and training field crews, coordinating with other professionals, and communicating with project stakeholders. Mr. Cashen's experience in study design, data collection, and scientific writing make him an effective project manager, and his background in several different natural resource disciplines enable him to address the many facets of contemporary land management in a cost-effective manner.

### REPRESENTATIVE EXPERIENCE

#### *Wildlife Studies*

- Peninsular Bighorn Sheep Resource Use and Behavior Study: (CA State Parks)
- "KV" Spotted Owl and Northern Goshawk Inventory: (USFS, Plumas NF)
- Amphibian Inventory Project: (USFS, Plumas NF)
- San Mateo Creek Steelhead Restoration Project: (Trout Unlimited and CA Coastal Conservancy, Orange County)
- Delta Meadows State Park Special-Status Species Inventory: (CA State Parks, Locke)

#### *Natural Resources Management*

- Mather Lake Resource Management Study and Plan – (Sacramento County)
- Placer County Vernal Pool Study – (Placer County)
- Weidemann Ranch Mitigation Project – (Toll Brothers, Inc., San Ramon)
- Ion Communities Biological Resource Assessments – (Ion Communities, Riverside and San Bernardino Counties)
- Del Rio Hills Biological Resource Assessment – (The Wyro Company, Rio Vista)

#### *Forestry*

- Forest Health Improvement Projects – (CalFire, SD and Riverside Counties)
- San Diego Bark Beetle Tree Removal Project – (SDG&E, San Diego Co.)
- San Diego Bark Beetle Tree Removal Project – (San Diego County/NRCS)
- Hillslope Monitoring Project – (CalFire, throughout California)

## Biological Resources

Mr. Cashen has a diverse background with biological resources. He has conducted comprehensive biological resource assessments, habitat evaluations, species inventories, and scientific peer review. Mr. Cashen has led investigations on several special-status species, including ones focusing on the foothill yellow-legged frog, mountain yellow-legged frog, desert tortoise, steelhead, burrowing owl, California spotted owl, northern goshawk, willow flycatcher, Peninsular bighorn sheep, red panda, and forest carnivores.

### REPRESENTATIVE EXPERIENCE

#### *Biological Assessments/Biological Evaluations ("BA/BE")*

- Aquatic Species BA/BE – Reliable Power Project (*SFPUC*)
- Terrestrial Species BA/BE – Reliable Power Project (*SFPUC*)
- Management Indicator Species Report – Reliable Power Project (*SFPUC*)
- Migratory Bird Report – Reliable Power Project (*SFPUC*)
- Terrestrial and Aquatic Species BA – Lower Cherry Aqueduct (*SFPUC*)
- Terrestrial and Aquatic Species BE – Lower Cherry Aqueduct (*SFPUC*)
- Terrestrial and Aquatic Species BA/BE – Public Lands Lease Application (*Society for the Conservation of Bighorn Sheep*)
- Terrestrial and Aquatic Species BA/BE – Simon Newman Ranch (*The Nature Conservancy*)
- Draft EIR (Vegetation and Special-Status Plants) - Wildland Fire Resiliency Program (*Midpeninsula Regional Open Space District*)

#### *Avian*

- Study design and Lead Investigator - Delta Meadows State Park Special-Status Species Inventory (*CA State Parks: Locke*)
- Study design and lead bird surveyor - Placer County Vernal Pool Study (*Placer County: throughout Placer County*)
- Surveyor - Willow flycatcher habitat mapping (*USFS: Plumas NF*)
- Surveyor - Tolay Creek, Cullinan Ranch, and Guadacanal Village restoration projects (*Ducks Unlimited/USGS: San Pablo Bay*)
- Study design and Lead Investigator - Bird use of restored wetlands research (*Pennsylvania Game Commission: throughout Pennsylvania*)
- Study design and surveyor - Baseline inventory of bird species at a 400-acre site in Napa County (*HCV Associates: Napa*)
- Surveyor - Baseline inventory of bird abundance following diesel spill (*LFR Levine-Fricke: Suisun Bay*)

- Study design and lead bird surveyor - Green Valley Creek Riparian Restoration Site (*City of Fairfield: Fairfield, CA*)
- Surveyor - Burrowing owl relocation and monitoring (*US Navy: Dixon, CA*)
- Surveyor - Pre-construction burrowing owl surveys (*various clients: Livermore, San Ramon, Rio Vista, Napa, Victorville, Imperial County, San Diego County*)
- Surveyor - Backcountry bird inventory (*National Park Service: Eagle, Alaska*)
- Lead surveyor - Tidal salt marsh bird surveys (*Point Reyes Bird Observatory: throughout Bay Area*)
- Surveyor - Pre-construction surveys for nesting birds (*various clients and locations*)

#### *Amphibian*

- Crew Leader - Red-legged frog, foothill yellow-legged frog, and mountain yellow-legged frog surveys (*USFS: Plumas NF*)
- Surveyor - Foothill yellow-legged frog surveys (*PG&E: North Fork Feather River*)
- Surveyor - Mountain yellow-legged frog surveys (*El Dorado Irrigation District: Desolation Wilderness*)
- Crew Leader - Bullfrog eradication (*Trout Unlimited: Cleveland NF*)

#### *Fish and Aquatic Resources*

- Surveyor - Hardhead minnow and other fish surveys (*USFS: Plumas NF*)
- Surveyor - Weber Creek aquatic habitat mapping (*El Dorado Irrigation District: Placerville, CA*)
- Surveyor - Green Valley Creek aquatic habitat mapping (*City of Fairfield: Fairfield, CA*)
- GPS Specialist - Salmonid spawning habitat mapping (*CDFG: Sacramento River*)
- Surveyor - Fish composition and abundance study (*PG&E: Upper North Fork Feather River and Lake Almanor*)
- Crew Leader - Surveys of steelhead abundance and habitat use (*CA Coastal Conservancy: Gualala River estuary*)
- Crew Leader - Exotic species identification and eradication (*Trout Unlimited: Cleveland NF*)

#### *Mammals*

- Principal Investigator - Peninsular bighorn sheep resource use and behavior study (*California State Parks: Freeman Properties*)

- Scientific Advisor – Study on red panda occupancy and abundance in eastern Nepal (*The Red Panda Network: CA and Nepal*)
- Surveyor - Forest carnivore surveys (*University of CA: Tahoe NF*)
- Surveyor - Relocation and monitoring of salt marsh harvest mice and other small mammals (*US Navy: Skagg's Island, CA*)
- Surveyor – Surveys for Monterey dusky-footed woodrat. Relocation of woodrat houses (*Touré Associates: Prunedale*)

*Natural Resource Investigations / Multiple Species Studies*

- Scientific Review Team Member – Member of the scientific review team assessing the effectiveness of the US Forest Service's implementation of the Herger-Feinstein Quincy Library Group Act.
- Lead Consultant - Baseline biological resource assessments and habitat mapping for CDF management units (*CDF: San Diego, San Bernardino, and Riverside Counties*)
- Biological Resources Expert – Peer review of CEQA/NEPA documents (*various law firms, non-profit organizations, and citizen groups*)
- Lead Consultant - Pre- and post-harvest biological resource assessments of tree removal sites (*SDG&E: San Diego County*)
- Crew Leader - T&E species habitat evaluations for Biological Assessment in support of a steelhead restoration plan (*Trout Unlimited: Cleveland NF*)
- Lead Investigator - Resource Management Study and Plan for Mather Lake Regional Park (*County of Sacramento: Sacramento, CA*)
- Lead Investigator - Biological Resources Assessment for 1,070-acre Alfaro Ranch property (*Yuba County, CA*)
- Lead Investigator - Wildlife Strike Hazard Management Plan (*HCV Associates: Napa*)
- Lead Investigator - Del Rio Hills Biological Resource Assessment (*The Wyro Company: Rio Vista, CA*)
- Lead Investigator – Ion Communities project sites (*Ion Communities: Riverside and San Bernardino Counties*)
- Surveyor – Tahoe Pilot Project: Validation of California's Wildlife Habitat Relationships (CWHR) Model (*University of California: Tahoe NF*)

## **Forestry**

Mr. Cashen has five years of experience working as a consulting forester on projects throughout California. Mr. Cashen has consulted with landowners and timber operators on forest management practices; and he has worked on a variety of forestry tasks including selective tree marking, forest inventory, harvest layout, erosion control, and supervision of logging operations. Mr. Cashen's experience with many different natural resources enable him to provide a holistic approach to forest management, rather than just management of timber resources.

### **REPRESENTATIVE EXPERIENCE**

- Lead Consultant - CalFire fuels treatment projects (*SD and Riverside Counties*)
- Lead Consultant and supervisor of harvest activities – San Diego Gas and Electric Bark Beetle Tree Removal Project (*San Diego*)
- Crew Leader - Hillslope Monitoring Program (*CalFire: throughout California*)
- Consulting Forester – Forest inventories and timber harvest projects (*various clients throughout California*)

## **Grant Writing and Technical Editing**

Mr. Cashen has prepared and submitted over 50 proposals and grant applications. Many of the projects listed herein were acquired through proposals he wrote. Mr. Cashen's clients and colleagues have recognized his strong scientific writing skills and ability to generate technically superior proposal packages. Consequently, he routinely prepares funding applications and conducts technical editing for various clients.

### **PERMITS**

U.S. Fish and Wildlife Service Section 10(a)(1)(A) Recovery Permit for the Peninsular bighorn sheep

### **PROFESSIONAL ORGANIZATIONS / ASSOCIATIONS**

The Wildlife Society

Cal Alumni Foresters

Mt. Diablo Audubon Society

### **OTHER AFFILIATIONS**

Scientific Advisor and Grant Writer – *The Red Panda Network*

Scientific Advisor – *Mt. Diablo Audubon Society*

Grant Writer – *American Conservation Experience*

## **TEACHING EXPERIENCE**

Instructor: Wildlife Management - The Pennsylvania State University, 1998

Teaching Assistant: Ornithology - The Pennsylvania State University, 1996-1997

## **PUBLICATIONS**

Gutiérrez RJ, AS Cheng, DR Becker, S Cashen, et al. 2015. Legislated collaboration in a conservation conflict: a case study of the Quincy Library group in California, USA.

Chapter 19 *in*: Redpath SR, et al. (eds). *Conflicts in Conservation: Navigating Towards Solutions*. Cambridge Univ. Press, Cambridge, UK.

Cheng AS, RJ Gutiérrez RJ, S Cashen, et al. 2016. Is There a Place for Legislating Place-Based Collaborative Forestry Proposals?: Examining the Herger-Feinstein Quincy Library Group Forest Recovery Act Pilot Project. *Journal of Forestry*.



**EXHIBIT D**



## PROJECT DESIGN CONSULTANTS

**DATE:** March 13, 2020

**FILE:** 4375.20

**TO:** Sergio Madera, City of Oceanside Engineering Division

**FROM:** Greg Shields, PDC San Diego

**SUBJECT:** Response to Comments for Tentative Map Engineering Division Comments, Ocean Kamp, T19-00004

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Here are PDC's response to comments for the plans:

1. Show the proposed residential development and streets on the conceptual plans.

**Response:** The proposed residential development has not been defined at this time, for that reason, the Ocean Kamp Tentative Map is showing the intended residential lots, streets, and backbone utilities that are to service those lots as has been discussed with City Officials. See *Ocean Kamp Tentative Map*.

2. Provide grading quantities on the plans.

**Response:** Grading quantities have been added, see *Ocean Kamp Tentative Map Sheet 1*.

3. Please show the proposed ROW lines and widths for Foussat Road on the plans.

**Response:** Street dimensions are on the grading and utility sheets, in addition to, Sheet 2 Street Sections. See *Ocean Kamp Tentative Map*.

4. Please provide a 10-foot parkway behind curb face along Foussat Road. Please show these improvements on plan view and street cross-sections.

**Response:** Parkway been incorporated as requested, see *Ocean Kamp Tentative Map*.

5. Foussat Road will need to show new development of PCC curb and gutter, and ADA sidewalk on both sides; and connect to the nearest existing curb, gutter, and sidewalk areas. Please show these improvements on plan view and street cross-sections.

**Response:** Improvements have been added, see sections and grading sheets of the *Ocean Kamp Tentative Map*.

6. The north side of Mission Avenue will need to be developed with PCC curb and gutter and ADA sidewalks. The improvements will connect to the existing improvements near Fire Station 7 to the west and continue east towards Fireside Street. Please show this proposed development on the plans.

**Response:** The requested sidewalk has been added to the north side of Mission Avenue, and where there is no existing curb and gutter the project is proposing curb and gutter up to the existing Fire Station, see *Ocean Kamp Tentative Map Sheet 11*.

7. The narrowed portion in Foussat Road will need to be widened to provide consistent flow-through traffic. The width and land assignments will be dictated by the site-specific traffic study and the Traffic Department. Please show this development on the plans.

(Name)  
(Date)  
Page 2

**Response:** Understood, to clarify the projects intent a striping sheet has been added. See *Ocean Kamp Tentative Map Sheet 13*.

8. Please show all pedestrian ramps on the plans and show how the sidewalks, public and private, will connect. All public pedestrian ramps need to be located entirely within the City ROW.

**Response:** Pedestrian ramps and sidewalk have been added to the site plan, see revised *Ocean Kamp Tentative Map*.

9. On sheet 12 of the development plan, the section of existing public 48-inch RCP, S outfall pipe located in the SLR bike trail to the northwest, no longer serves the public interest and only this development. Therefore, this section of pipe shall be considered private and maintained by this development's HOA or management group. Please identify this section of pipe as "private" on the plans.

**Response:** Note has been added to the Existing 48" pipe that it is to become private, see *Ocean Kamp Tentative Map Sheet 12*.

10. Drainage Report: Will stormwater runoff occur onto the existing residential neighborhood to the east, along Fireside Drive or other offsite areas? Please discuss this in the report in more detail.

**Response:** See report. The project is not proposing to allow runoff into adjacent neighborhoods, a section has been added to the grading sheet to better define the intent for the 100-foot wildlife corridor.

11. Drainage Report: Please include more information regarding the proposed residential development and proposed drainage infrastructure for these areas, as well as the resort (drainage pipes, inlets, roof downspouts). Some of this information can be included as part of a discussion and/or exhibit.

**Response:** See report.

**EXHIBIT E**

**Ocean KAI Mixed-Use Plan Resubmittal - Responses to City Air Review Letter**

COMMENT	RESPONSE
<b>PLANNING</b>	
<p>1 Pursuant to the Application Submittal Review Letter dated August 29, 2019, the required Hydrology Study, Storm Water Quality Management Plan, and Traffic Impact Analysis were missing from the initial submittal. Please provide the identified studies with the next submittal so those technical reviews may commence.</p>	<p>A CEQA-level drainage study, PDP-SWQMP, and transportation impact analysis are included with this resubmittal.</p>
<p>2 The Economic Impact Study submitted with the application does not include an analysis of the proposed 700 residential units. Please provide a Fiscal Impact Analysis that analyzes the fiscal impacts of the entire project. The submitted fiscal impact analysis will be subject to peer review by the City's consultant to confirm it's findings and conclusions.</p>	<p>A revised Fiscal Impact Analysis including the residential component of the project is included with this resubmittal.</p>
<p>3 Very little information has been provided for the proposed residential component of the project. The residential component represents a significant proportion of the project and more detail should be provided. Please update the mixed-use development plan document to designate the different residential planning areas (R- 1 - R-6), provide a land use summary to include a dwelling unit cap per planning area, identify potential residential building types, identify development regulations per planning area, and provide design guidelines for the residential component.</p>	<p>The Mixed-Use Development Plan has been revised to include additional details on the development regulations and dwelling unit cap for the residential component of the project. The residential lots are shown on the Mixed-Use Plan, as well as the Tentative Map as lots R-1 through R-9. Residential community design guidelines will be provided in a subsequent submittal as part of the residential development plan.</p>
<p>4 Please provide a tentative subdivision exhibit that shows how the property is proposed to be subdivided and that meets the technical requirements for a subdivision map.</p>	<p>A Tentative Map is included with this resubmittal.</p>
<p>5 Provide a separate open space exhibit that shows the proposed open space areas to be incorporated into the project. The open space exhibit should identify the types of open space proposed and quantify how much of each open space category is being provided.</p>	<p>An open space exhibit is included in the mixed-use plan.</p>
<p>6 The project application indicates satisfying the project's inclusionary housing requirement through the payment of the affordable housing in-lieu fee. While the Inclusionary Housing Ordinance allows for the payment of the in-lieu fee to satisfy the inclusionary housing requirement, staff would encourage the provision of (or at least a portion of) the inclusionary housing obligation on site.</p>	<p>Comment noted.</p>
<p>7 Pursuant to the adopted Airport Land Use Compatibility Plan for the Oceanside Municipal Airport, a Federal Aviation Administration (FAA) Part 77 Airspace Analysis is required prior to the Airport Land Use Commission making a compatibility determination on the project or prior to the City taking action on the project. The Part 77 review can be initiated through the FAA at the following link: <a href="https://oeaaa.faa.gov/oeaaa/external/portal.isp">https://oeaaa.faa.gov/oeaaa/external/portal.isp</a></p>	<p>Comment noted, please see revised architectural site plan airport overlay exhibit prepared for FAA compliance. Exhibits have been presented to FAA and coordination is ongoing.</p>
<p>8 Pursuant to Section 2.10 of the adopted Airport Land Use Compatibility Plan for the Oceanside Municipal Airport, a consistency determination on the proposed development by the Airport Land Use Commission is required prior to the City taking action on the project. City staff will initiate the consistency review once the application is closer to being deemed complete.</p>	<p>Comment noted.</p>

**Ocean KAI Mixed-Use Plan Resubmittal - Responses to City Approval Letter**

COMMENT	RESPONSE
<p>9 The submitted plans depict development, in the form of parking, landscaping and a bike trail, on a portion of the City owned two acre parcel (APN: 160-270-77). Please contact Doug Eddow, Real Estate Manager, to initiate and formalize an agreement for the use of the City property. Doug can be reached at 760-435-5012 or at deddow@oceansideca.org</p>	<p>Coordination is ongoing regarding this issue.</p>
<p>10 As outlined in City Council Policy 300-14, a Community Outreach Plan, which identifies how you will pursue community outreach, and a Community Outreach Report, which documents how community outreach efforts were implemented, are required to be completed prior to the application being deemed complete.</p>	<p>A revised Community Outreach Plan was submitted to the City in November 2019. The revised plan is not included with this resubmittal.</p>
<p>11 Please note that the project application was initially assigned a Tentative Tract number (T19-00004) in error. We've provided a new Tentative Parcel Map number (P19- 00009) for the proposed subdivision. Please include the newly assigned Tentative Parcel Map number, along with the assigned Development Plan (D19-00019) and Conditional Use Permit (CUP19-00021) on all project plans and studies.</p>	<p>Comment noted; TPM number P19-00009 has been used on project documentation.</p>
<b>ENGINEERING</b>	
<p>1 Please show the bench mark on plan. Use the City of Oceanside first order monumentation and bench mark. Add NAVD88 Bench Mark (2014 Control Survey Monument Map: <a href="http://www.ci.oceanside.ca.us/gov/dev/eng/gis_maps/scn.asp">http://www.ci.oceanside.ca.us/gov/dev/eng/gis_maps/scn.asp</a>)</p>	<p>Benchmark information is shown on sheet 1 of the Tentative Map.</p>
<p>2 Please show the FEMA flood Zone on conceptual site plan. Show the exact areas of the flood inundation areas (flood zone).</p>	<p>Existing and proposed FEMA flood zone has been incorporated into the Tentative Map.</p>
<p>3 Please show street cross sections for SR-76, Foussat Road and Mission Avenue.</p>	<p>Street cross sections are provided in sheet 2 of the Tentative Map.</p>
<p>4 Please show the specific pad elevations on the site plan.</p>	<p>See Tentative Map grading sheets and A 1.3 for Finish Floor Elevations.</p>
<p>5 Please submit a hydrology/drainage report. Show Q2, Q10 &amp; Q100 in the drainage report.</p>	<p>A CEQA-level drainage report has been prepared and is provided with the resubmittal.</p>
<p>6 Please submit SWQMP-PDP comments.</p>	<p>A PDP-SWQMP has been prepared and is provided with the resubmittal.</p>
<p>7 Please provide a geotechnical report.</p>	<p>A geotechnical report was included in the August 29 submittal.</p>
<p>8 Please address Transportation comments.</p>	<p>Responses to the Transportation comments are provided below.</p>
<p>9 Additional Engineering comments will be provided with the second plan review, when all required documents are resubmitted with the next check.</p>	<p>Comment noted.</p>
<p>10 Please feel free to call Engineering at (760) 435-5083 if you have any questions.</p>	<p>Comment noted.</p>
<b>TRANSPORTATION</b>	
<p>1 A traffic study update will be required.</p>	<p>A transportation impact analysis is included with this resubmittal.</p>
<p>2 Any potential traffic study recommendations to signalize and/or provide turn movement geometry at project driveways must be shown on the plans.</p>	<p>Comment acknowledged; traffic study recommendations will be incorporated into project plans in a subsequent submittal, as applicable.</p>

COMMENT	RESPONSE
3 Provide in plans, section details for all fronting streets, internal streets and bike paths. Streets section details must clearly show proposed frontage improvements with sidewalk, bike path and parkway.	Street sections have been included in the Tentative Map for all fronting and on-site streets that clearly define frontage improvements.
4 All parking stalls adjacent to a vertical obstruction greater than 6" must provide one additional foot of lateral clearance.	Comment noted.
5 It is not clear on plans where heavy vehicle delivery will occur. Show on plans all proposed heavy vehicle loading areas with heavy vehicle turning templates to demonstrate accessibility.	See A1.3 for loading bays and vehicle tracking curves for a California Legal Design vehicle (65' truck trailer).
6 It is not clear on plans if the proposed residential access on Mission Avenue will be gated. Since this is proposed to be accessed via private street, the driveway here should be gated and must meet the City's standard for gated access, which will require a minimum 3-car queue capacity with the ability to do u-turn in front of the gate.	All project roadways (with the exception of Fousat road) are intended to be privately-maintained and open to the public and would not be gated.
7 Curb, gutter and sidewalk should be shown on all private streets.	Curb, gutter and sidewalks are shown on project plans for all proposed roadways.
8 Visitor parking areas must be clearly shown on plans if proposed private streets are 28' wide.	Comment noted.
9 More information is need to describe the proposed resort with lazy river, wave pool and RVs. It is not clear on plans how the RVs will access the location proposed.	The proposed RVs would be stationary within the resort and are included in the 300-key total. They will be connected to power, plumbing, and sewer systems.
<b>LANDSCAPE</b>	
1 Base Conceptual Landscape Plan (CLP) Information	-
a. Please locate all drainage swales on plan or refer to the Civil's Preliminary Grading and Development Plan for grades and drainage information.	Note added to sheet L1.0 indication to refer to Tentative Map for grading information.
b. Provide a "Tree Survey Map" showing all existing trees to be relocated or removed (where applicable), clearly labeled with tree type (botanical names and common names), quantities, and diameter at breast height (DBH) for canopy trees and/ or brown trunk height (BTH) for palms. <u>This requires a tree survey, schedule of tree replacement, or other mitigation requirements. State the total of DBH and BTH lost, and the total of DBH and BTH replaced on the Tree Survey Map.</u>	No "Tree Survey Map" is necessary as there is no trees on the existing site.
c. The trees that are going to be called out to be "Protected in Place" need to contain language to support the action of protecting the trees in place. Such language may include but not limited to: no mechanical grading to cause a change of grade or elevation around the base of trees or within the drip line of the trees, no mechanical equipment or drenching within the drip line of the trees to avoid disturbance of the root system, and no excessive pruning or equipment around the canopy to cause injury to branches, trunk and compaction of roots. In addition, please note that if the existing trees are damaged or destroyed by construction activities that the trees are to be replaced in kind and of the same size diameter. Call out and show all language on the CLP.	No "Protected in Place" is necessary as there is no trees on the existing site.
d. The city requires a 1:1 replacement ratio for all DBH and BTH removed.	No "Tree Survey Map" is necessary as there is no trees on the existing site.

Ocean KAI Red-Use Plan Resubmittal - Responses to City A Review Letter

COMMENT	RESPONSE
e. In reviewing the plan I see no bio-filtration basin(s) proposed. Please make sure these basins are called out on the CLP and shown as planted.	Bio-filtration basins are called out on sheet L1.1.
f. Please clarify for the next submittal on the CLP, maintenance responsibilities for the proposed landscape. Make sure to specify the maintenance responsibilities for both the private (On-site) as well as the public (ROW) landscape.	Note has been added on sheet L1.0 under General Notes 'C' regarding maintenance responsibility.
g. Any exposed walls or retaining walls along the project frontage facing Highway 76 and North Foussat Rd. shall require some vine species to protect them from future graffiti.	Currently there are no walls or retaining walls proposed along the project frontage facing SR 76 or North Foussat Road.
2 Conceptual Plant List	-
a. Although the realistic looking trees are nice for a rendered CLP they can be confusing on a black and white reproduction or reduction set often used in entitlement publications. For this CLP please replace the realistic tree symbols with the traditional circle with unique center symbol.	CLP has been updated to black and white as requested. Trees have unique symbols.
b. The same visual difficulty is present for the shrub palette symbols provided. If the hatch symbol is preferred over the traditional plant symbols for shrubs and groundcover then please chose to use a hatch symbol to replace the green colored areas. Please use a unique black and white hatch symbol or grey shaded areas for these locations.	CLP has been updated to black and white as requested. Shrubs have unique hatch pattern.
c. Please make sure that one tree symbol is also representative of existing trees on sight. Please add existing tree/ plant symbols to the plant legend.	There are no existing trees on site.
d. One of the proposed street trees provided on the CLP is a <u>Washingtonia fulifera - Mexican Fan Palm</u> . Please be sure to propose a shade tree to be planted along with the Washingtonia spp. as a street tree.	A note has been added to sheet L1.0 under Planting Notes item #14 in the event <i>Washingtonia robusta</i> is used.
e. Note that the street trees shall comply with the City of Oceanside Street Tree Standard 21 IA.	A note has been added to sheet L1.0 under Planting Notes item #13.
f. All street trees are to be chosen from the current approved City of Oceanside Street Tree List and be a minimum 24" bolt in size.	A note has been added to sheet L1.0 under Planting Notes item #13.
3 Property Lines, Sight Distances, Utility Lines/ Easements	-
a. If applicable, clearly show and call out all property lines, public rights-of-way lines, Clear line-of-sight distances, utility lines as well as utility, gas, water, sewer, and storm drain easements. Please diagrammatically clarify all of these with a callout. In addition, all easements shall be designated with dimension lines and sight lines (where applicable) and shall be drawn on the CLP.	Call out to utilities have been placed on sheet L1.1. A note has been added on to sheet L1.0 to refer to Tentative Map for all other easements and utility.
4 Notes - Please add to notes if they are not currently found on the CLP.	-
a. Final landscape plans shall accurately show placement of trees, shrubs, and groundcovers.	Note has been added to sheet L1.0.
b. Landscape Architect shall be aware of utility, sewer, storm drain easement and place planting locations accordingly to meet City of Oceanside requirements.	Note has been added to sheet L1.0.
c. All required landscape areas shall be maintained by owner or as stated in any legal document such as but not limited to a lease agreement. The landscape areas shall be maintained per City of Oceanside requirements.	Note has been added to sheet L1.0.

COMMENT	RESPONSE
Typical irrigation note to be added onto the CLP such as but not limited to:	Note has been added to sheet L1.0.
d. An automatic irrigation system shall be installed to provide coverage for all planting areas shown on the plan. Low volume equipment shall provide sufficient water for plant growth with a minimum water loss due to water run-off. Irrigation systems shall use high quality, automatic control valves, controllers and other necessary irrigation equipment. All components shall be of non-corrosive material. All drip systems shall be adequately filtered and regulated per the manufacturer's recommended design parameters. All irrigation improvements shall follow the City of Oceanside Guidelines and Water Conservation Ordinance.	Note has been added to sheet L1.0.
Typical planting note to be added onto the CLP such as but not limited to:	Note has been added to sheet L1.0.
e. The selection of plant material is based on cultural, aesthetic, and maintenance considerations. All planting areas shall be prepared with appropriate soil amendments, fertilizers, and appropriate supplements based upon a soils report from an agricultural suitability soil sample taken from the site. Ground covers or bark mulch shall fill in between the shrubs to shield the soil from the sun, evapotranspiration and run-off. All the flower and shrub beds shall be mulched to a 3" depth to help conserve water, lower the soil temperature and reduce weed growth. The shrubs shall be allowed to grow in their natural forms. All landscape improvements shall follow the City of Oceanside Guidelines.	Note has been added to sheet L1.0.
f. The current general notes below refer to the placement of trees and their distances from hardscape and other utilities/ structures. Please show the City of Oceanside's current tree planting distances spacing on the CLP and space proposed trees accordingly.	Note has been added to sheet L1.0.
<u>STREET TREES AND OTHER TREES SHALL BE SPACED:</u>	Note has been added to sheet L1.0.
i. 8 feet (previously 3 feet) from transformers, cable, and pull boxes.	Note has been added to sheet L1.0.
ii. 5 feet from mailboxes	Note has been added to sheet L1.0.
iii. 5 feet from fire hydrants (all sides)	Note has been added to sheet L1.0.
iv. 10 feet from centerline (previously 7 feet) of all utility lines (without easement) (sewer, water, storm drains, double check detectors, air relief valves and gas)	Note has been added to sheet L1.0.
v. 10 feet from easement boundaries (sewer, water, storm drains, access or other utilities)	Note has been added to sheet L1.0.
vi. 10 feet from driveways (unless a line of sight is determined by the Traffic Division to be otherwise)	Note has been added to sheet L1.0.
vii. 10 feet from traffic and directional signs	Note has been added to sheet L1.0.
viii. 15 feet (minimum) from streetlights, other utility poles, (determined by specifications)	Note has been added to sheet L1.0.
ix. Street trees shall be planted 3' outside right-of-way if the right-of-way does not allow space, subject to the City Engineer's approval.	Note has been added to sheet L1.0.

COMMENT	RESPONSE
x. Line of sight at arterials, collector and local streets shall be reviewed and determined by Traffic Engineer. A minimum of twenty-five feet (25') from street intersection or as approved by the Traffic Engineer.	Note has been added to sheet L1.0.
xi. Minimum fifteen feet (15') streetlight and stop sign or clearance determined by specifications.	Note has been added to sheet L1.0.
xii. Screen all utilities according to specific agency requirements.	Note has been added to sheet L1.0.
g. Root barriers shall be installed adjacent to all paving surfaces where a paving surface is located within 6 feet of a tree trunk on site (private) and within 10 feet of a tree trunk in the right-of-way (public). Root barriers shall extend 5 feet in each direction from the centerline of the trunk, for a total distance of 10 feet. Root barriers shall be a minimum 24 inches in depth. Installing a root barrier around the tree's root ball is unacceptable.	Note has been added to sheet L1.0.
<b>Fire Notes</b>	
h. include the following Fire notes on the CLP:	-
i. Landscape Improvement Plan set and installation are required to implement approved Fire Dept. regulations, codes, and standards at the time of project approval.	Requested fire notes have been added to sheet L1.0.
ii. All fire hydrants, double check detectors, post indicating valves, and fire department connections shall be provided with a 3-foot clearance around all fire apparatuses.	Note has been added to sheet L1.0.
iii. All trees at maturity shall meet a horizontal clearance along all roadways from curb to curb. Horizontal roadway clearance for a one-story building is 28-feet wide.	Note has been added to sheet L1.0.
iv. All trees at maturity shall meet a vertical clearance of 14-feet from the top of the roadway to the lowest branches.	Note has been added to sheet L1.0.
<b>5 Fences, Gates, Walls, Retaining Walls, Raised Garden Planters, and Decorative Paving</b>	
a. Fencing and walls are to be provided on the CLP. Please make sure the fencing and wall symbols are not just relying on color for differentiation but line type and patterns should be unique for common black and white reproductions.	Fencing and walls are called out on the enlargement plans sheets L2.1 - L2.5 and a different line type has been assigned to each.
b. On the landscape plan provided in the entitlement package there are no symbols or callouts for proposed fencing. Please place all existing and proposed fencing on the CLP with a symbol and callout for reference. A basic conceptual detail of all proposed walls, fencing and gates will be required to show materials, texture, height and color.	Fencing and walls are called out on the enlargement plans sheets L2.1 - L2.5 and conceptual details for each fence and gate are on sheets L4.0 - L4.1.
c. If applicable - call out paving (both decorative and standard) in the pedestrian areas to include the type of paving, pattern, and color on the CLP. All pedestrian paving shall include a note stating the following language: All pedestrian paving (both decorative and standard) shall comply with the most current edition of the American Disability Act.	Callouts for paving are on the enlargement plans sheets L2.1-L2.5. Note has been placed on sheet L1.0 under General Notes item D.
d. Obtain Planning Division approval for the items 5 (a) through 5 (c) above prior to deeming the project approved for entitlement and prior to public hearing.	Comment noted.
<b>6 Trash Enclosure</b>	

COMMENT	RESPONSE
a. For this entitlement package please show on the CLP the conceptual design for the trash enclosure(s) on site.	See sheet RA-A3.1 for typical trash enclosure elevations.
To bring the landscape portion of the application to a "complete" status, the Conceptual Landscape Plan (CLP) shall be corrected, updated, or supplemented and re-submitted as more particularly detailed for each applicable listed mentioned above.	Comment noted.
<b>FIRE DEPARTMENT</b>	
1 All proposed and existing fire hydrants within 400 feet of the project shall be shown on the site plan.	See added sheet A1.4.
2 Fire apparatus access roadways shall be provided within 150 feet of all exterior walls of the first floor of all buildings. The route of the fire apparatus access road shall be approved by the Fire Department. The 150 feet distance is measured by means of an unobstructed route around the exterior of the building.	See added sheet A1.4.
3 Apparatus access roads shall have a minimum unobstructed width of 28 feet and minimum vertical clearance of 14 feet.	See added sheet A1.4.
4 Buildings or portions of buildings more than thirty-five (35) feet in height shall be provided with a street, driveway, or designated fire lane not less than 35 feet wide which shall be able to accommodate fire department aerial apparatus and designed in a manner so that ladder truck operations can be affected on at least one side of the building which has openings into its interior. Such street, alley, driveway, or designated fire lane shall be located not more than 15 feet from buildings at a point adjacent to the highest building or portion thereof.	See added sheet A1.4.
5 Fire department access roadway shall be provided with adequate turning radius for fire department apparatus: 50 foot outside and 30 foot inside turning radius. Traffic circle must be sized to accommodate emergency vehicles. Curbs or islands may not impede turning radius.	See added sheet A1.4.
6 All streets less than 32 feet wide shall be posted "NO PARKING FIRE LANE" per Vehicle Code Section 22500.1. Any markings, signs and/or fire lane identification shall be in accordance with the Fire Department Standard Guidelines for Emergency Access.	See added sheet A1.4.
Fire Prevention Requirements:	
7 Buildings four or more stories in height must meet the requirements of Oceanside Mid-Rise Ordinance.	The project has been designed to meet the Oceanside Mid-Rise Ordinance.
8 Prior to delivery of combustible materials or start of combustible construction, paved vehicle access roads capable of supporting vehicle loading (78,000 lbs) must be installed. In addition, the approved, permanent water supply (fire hydrants) must be installed, tested and placed in service prior to delivery of combustible materials or start of combustible construction.	Comment noted.
9 In buildings required to have standpipes, not less than one standpipe shall be provided for use during construction. Standpipes shall be installed when the progress of construction is not more than 40 feet in height above the lowest level of fire department vehicle access. Fire department hose connections shall be provided at accessible locations adjacent to usable stairs. Standpipes shall be extended as construction progresses to within one floor of the highest point of construction having secured decking or flooring.	Comment noted.

Ocean K&L Red-Use Plan Resubmittal - Responses to City A Review Letter

COMMENT	RESPONSE
10 All power operated vehicular gates installed across fire access roadways shall be equipped with Knox electronic override and Opticom strobe activated opening devices.	Comment noted.
11 Knox boxes required to be located at building entrances in locations required by the fire department.	Comment noted.
12 Fire flow shall be determined at the time of building permit application.	Comment noted.
13 Fire department connections shall be located on the address side of the building - unless otherwise determined by the Fire Department. A fire hydrant shall be located within 40 feet of and on the same side of the street as the fire department connection.	See added sheet A1.4.
14 Fire sprinklers required in buildings per California Fire Code Section 903.	See added sheet A1.4.
15 Fire alarm systems required in buildings per California Fire Code Section 907.	Fire alarm systems would be provided as required.
16 Elevators must be sized to accommodate an emergency gurney.	Comment noted.
17 In mid-rise buildings, the fire alarm control panel must be located in a main lobby or in a designated room with an exterior access door as approved by the fire department.	Comment noted.
18 Fire sprinkler riser must be located in a room with exterior access door.	Comment noted.
19 Project must support adequate radio coverage for City emergency service workers operating on the 800MHz Countywide Coordinated Communication System, or the current radio system in use. Ownership must maintain a reasonable standard of reliable radio communication within the buildings and structures once a Certificate of Occupancy is issued. The BDA (bi-directional amplifier) coverage enhancers must be maintained as a condition of occupancy and tested annually. When tested, if the 800MHz signal strength readings (RSSI) fall below 65 in any portion of the building, either above or below grade as measured by an 800 MHz portable radio, the purchase and installation of one or more bidirectional amplifier radio coverage enhancers is required. A minimum signal strength of (-95dBm) in 90 percent of the area of each floor building from both the 800 MHz Countywide Communications Systems and from within the building is required.	Comment noted.
20 Provide address directory board at a location approved by the fire department.	The address directory board will location will be approved by the Fire Department at a later date.
21 Provide a Fire Master Plan for review prior to Building permit application.	A Fire Master Plan will be submitted prior to Building permit application.
SOLID WASTE	Response
1 The project must demonstrate adequate solid waste service and storage for all three streams (solid waste, recycling and organics). Please update plans to reflect service and storage for all three streams, solid waste, recycling and organics. The plans need to include an enclosure detail which identifies a location where dumpsters do not block the alleyway, public right of way, or create public nuisance. For reference the City of Oceanside Enclosure Guidelines is attached. The City of Oceanside reserves the right to review program and services levels and request increases if deemed necessary. The City of Oceanside Municipal Code Chapter 13 requires that Oceanside residents, businesses and multifamily projects are to separate all recyclable material from other solid waste. Additionally, the State of California regulations requires all California businesses participate in Mandatory Recycling (AB 341) and Mandatory Commercial Organics Recycling (AB 1826 & SB 1383) as outlined in the Oceanside Solid Waste code.	See updated Waste Management Schematic Design document. Waste collection locations shown on sheet A1.3.

COMMENT		RESPONSE
<b>WATER UTILITIES - LETTER DATED 10/21/19 (SUPERSEDES</b>		
W01	Define zones R-1 through R-6 listed on A1.1.	Residential lots R-1 through R-9 are shown on Tentative Map.
W02	Water & sewer studies must be prepared by the developer, at the developer's expense, and reviewed and approved by the Water Utilities Department. Each analysis shall consider all proposed and future development on the site (include zones R1-R6), as well as provide tie-in locations and projected sewer flow rates.	Water and sewer studies will be provided in a subsequent submittal.
W03	The tentative map shows the Zephyr development's sewer connection into the existing 24" sewer main in Mission Ave which then discharges into the drop manhole in front of the Mission Avenue Lift Station. The proposed connection point includes sewer flows from Ocean Kamp and the future residential zones R4-R6. A previously submitted study for this property, <i>Pavilion Project - Sewer Study</i> dated August 10, 2007, had identified this existing 24" gravity sewer main as needing to be upsized to a 30" to accommodate the increased sewer flows. The Zephyr development is required to submit an updated sewer study for review and approval by Water Utilities Department to determine if any off-site sewer improvements are required. The City is in the process of obtaining sewer flow monitoring of the existing 24" gravity main in Mission Ave from Fireside Street to the lift station. If available, the City will provide this data to the developer's engineer to incorporate into the revised sewer study.	The project is proposing to upsized the existing 24" sewer to a 30" sewer to ensure there is adequate capacity; see Tentative Map Utility Sheets.
W04	Show public water main with minimum 30' easement in private road between northern portion of Ocean Kamp and southern portion of residential development.	The water main that is in the projects looped road is intended to be a public water main and has been labeled as such. The easement has been labeled on the sections sheet of the Tentative Map.
W05	The single feed public water loop shown on plans is not acceptable. The on-site fire system shall be private and looped with two connections to the City's water system. One connection shall be off the existing 12" steel main in Foussat Road and second off the existing 18" DIP main in Mission Ave. The existing 4" AC main entering the property shall be used to feed loop, and upsized to meet City's standard and Water study requirements. Provide public water main with minimum 20' easement in private road, turf block, or pavement that can support H-20 loading along northern portion of Ocean Kamp development.	The onsite fire line has been revised to have two points of connection as requested, see Tentative Map Utility Sheets.
W06	All utilities in Foussat Street (old Foussat), including the exiting 8" Marlado force main shall be relocated to Foussat Road, and eliminate the existing 6" force main crossing under State Route 76 (SR-76) by running along southern portion of development in a minimum 45-ft wide dedicated public sewer easement & minimum 14-ft wide access road. All water mains shall tie back into their appropriate connections at the intersections of Foussat St and SR-76. The Marlado force main shall break to gravity in a minimum 20-ft wide public sewer easement and flow into the existing manhole (600918049) in the southern portion of property.	The project is proposing to relocate all utilities in old Foussat Road to new Foussat Road, see Tentative Map Utility Sheets.
W07	Proposed water main on Sheet C-2, in Zones R-4 - R-6 shall be looped with two connections to the City's water system. One connection shall be off the existing 12" AC main in Mission Ave, and a second connection off the existing 8" AC main in Heritage St.	The proposed water main has been revised to tie into the two locations that are being requested, see Tentative Map Utility Sheets.

Ocean Kamp Land-Use Plan Resubmittal - Responses to City Approval Letter

COMMENT		RESPONSE
W08	On-site sewer to serve Ocean Kamp development shall be private. All on-site private sewer shall discharge into existing 8" PVC lateral in southern portion of property. Revise and resubmit civil plans.	The proposed on-site sewer for the development is to be private. The private sewer system from the site will discharge into the public sewer line that is in the looped road and then discharge into the existing 24" sewer main that is to be upsized to a 30" sewer main.
W09	Sheet C-3 proposed 16" force main, 18" water main (511), and 20" ground water main shall be located within property boundary, with proper separations called out. Provide a minimum 45-ft wide dedicated public utility easement and access road constructed of turf block or pavement that can support H-20 loading, with a turnaround or hammer head.	The project intends to obtain permission from the City of Oceanside to locate the utilities within their property, that coordination is ongoing.
W10	Show on plan, each commercial building with a separate City water meter. Design plans will show a private sub-meter for each commercial suite where there is more than one tenant or commercial business within a building. Water supply lines after the City meters to each building shall be privately maintained and have a backflow assembly.	Water meters for the Residential, Hotel, and Commercial/Retail buildings have been incorporated into the plan per the City's direction, see Tentative Map Utility Sheets.
W11	Show on plan, dedicated City water meter(s) for hotel resort and associated buildings. Design plans will show a private sub-meter for buildings maintained by hotel resort. Water supply lines after the City meters to each building shall be privately maintained and have a backflow assembly.	Water meters for the Residential, Hotel, and Commercial/Retail buildings have been incorporated into the plan, in addition to, private backflow preventers and callouts that define all water lines that are past the backflow as private. See Tentative Map Utility Sheets.
W12	Show on plan, a separate City water meter for outdoor water play areas maintained by resort hotel, such as wave pool, lazy river, adult pool, children's splash, etc.	Separate water meters have been incorporated for the Wave Pool and other buildings within the project site per City direction. See Tentative Map Utility Sheets.
W13	Maximum fire hydrant spacing is 300 feet and all portions of commercial or industrial buildings shall be within 150 feet of an approved fire hydrant accessible to the fire department vehicles per Section 2.6 of the <i>Water, Sewer, and Recycled Water Design and Construction Manual</i> .	Fire Hydrants have been added to the utility design per the City direction. See Tentative Map Utility Sheets.
W14	A block wall enclosure with double swing gates shall be provided around the existing air-release valves for containment during cleaning and maintenance operations. This enclosure shall provide access for required maintenance vehicles at all times.	No air-release valves are identified on the Tentative Map. Once the City reviews the submittal package, PDC will request a meeting with the City's Utilities Department to determine where the existing air-release valves are located, and determine how to protect and maintain access at that time.
W15	Beach sand is proposed throughout portions of development. Oil and Sand Interceptor(s) shall be installed, as described by the latest adopted California Plumbing Code Chapter 10. Interceptor shall be maintained in accordance with the Fats, Oil, and Grease permit. The location shall be shown on the approved Engineering Plans with reference to Building Plans for design and detail.	The project will comply with the California Plumbing Code regarding 'Oil and Sand Interceptors' and will call them out on the civil sheets with a reference to the building plan once their location has been determined.

**Ocean KAI Red-Use Plan Resubmittal - Responses to City A Review Letter**

COMMENT		RESPONSE
W16	A Grease Interceptor, as required per City of Oceanside Ordinance 07-OR0021-1 & 18-OR0021-1 relating to food service establishments shall be on each building sewer when deemed necessary in an appropriate outside location and shall be maintained by the property owner. The grease interceptor shall be shown on Engineering Plans with reference to Building Plans for design and detail.	The project will comply with the City of Oceanside Ordinance 07-OR0021-1 & 18-OR0021-1 relating to 'Grease Interceptors' and call them out on the civil sheets with a reference to the building plan once their location has been determined.
<b>General Conditions:</b>		
W17	For developments requiring new water service or increased water service to a property, the landowner must enter into an agreement with the City providing for landowner's assignment of any rights to divert or extract local groundwater supplies for the benefit of the property to receive new or increased water service, in return for water service from the City, upon such terms as may be provided by the Water Utilities Director.	The landowner shall enter into an agreement with the City as noted.
W18	All existing active and non-active groundwater wells must be shown on conceptual, grading, and improvement plans.	Comment noted.
W19	The developer will be responsible for developing all water and sewer utilities necessary to develop the property. Any relocation of water and/or sewer utilities is the responsibility of the developer and shall be done by an approved licensed contractor at the developer's expense.	Comment noted.
W20	All Water and Wastewater construction shall conform to the most recent edition of the <i>Water, Sewer, and Recycled Water Design and Construction Manual</i> or as approved by the Water Utilities Director.	Comment noted.
W21	The property owner shall maintain private water and wastewater utilities located on private property.	Comment noted.
W22	Water services and sewer laterals constructed in existing right-of-way locations are to be constructed by an approved and licensed contractor at developer's expense.	Comment noted.
W23	Provide a separate irrigation water meter with reduced pressure principle backflow device for common area landscaping. Meter shall be managed and paid for by the Homeowner's Association for the development. Irrigation meter may be a dedicated water meter, or a private sub-meter.	Comment noted.
W24	Per the latest approved California Fire Code, all new residential units shall be equipped with fire sprinkler system.	Comment noted.
W25	Buildings requiring an NFPA 13 or NFPA 13R automatic sprinkler system for fire protection shall have a dedicated fire service connection to a public water main with a double check detector backflow assembly. Location of the backflow assembly must be approved by Fire Department.	Comment noted.
W26	The City operates a groundwater purification facility (Mission Basin Water Purification Facility) adjacent to the R-group developments proposed at the northern portion of the property. The facility contains outdoor pumps that face the development. Any sound proofing modifications required at the City facility will be designed, permitted, and installed at the developer's expense.	Comment noted.
<b><u>The following conditions shall be met prior to the approval of engineering design plans:</u></b>		
W27	All public water and/or sewer facilities not located within the public right-of-way shall be provided with easements sized according to the <i>Water, Sewer, and Recycled Water Design and Construction Manual</i> . Easements shall be constructed for all weather access.	Comment noted; condition shall be met prior to approval of engineering design plans.

COMMENT	RESPONSE
W28 Any water and/or sewer improvements required to develop the proposed property will need to be included in the improvement plans and designed in accordance with the <i>Water, Sewer, and Recycled Water Design and Construction Manual</i> .	Comment noted; condition shall be met prior to approval of engineering design plans.
W29 No trees, structures or building overhang shall be located within any water or wastewater utility easement.	Comment noted; condition shall be met prior to approval of engineering design plans.
W30 All lots with a finish pad elevation located below the elevation of the next upstream manhole cover of the public sewer shall be protected from backflow of sewage by installing and maintaining an approved type backwater valve, per the latest adopted California Plumbing Code.	Comment noted; condition shall be met prior to approval of engineering design plans.
W31 Recycled water is anticipated to be supplied through the Fallbrook outfall line in the near future. When recycled water becomes available, this property shall be required to convert its irrigation supply to recycled water. The irrigation system shall be designed in anticipation of a future recycled water service and meter.	Comment noted; condition shall be met prior to approval of engineering design plans.
W32 An inspection manhole for commercial waste as described by the <i>Water, Sewer, and Recycled Water Design and Construction Manual</i> , shall be on each building sewer lateral and the location shall be called out on the approved engineering plans.	Comment noted; condition shall be met prior to approval of engineering design plans.
W33 Connections to public sewer main with 6-inch or larger sewer lateral will require a new sewer manhole for connection to main per Section 3.3 of <i>Water, Sewer, and Recycled Water Design and Construction Manual</i> .	Comment noted; condition shall be met prior to approval of engineering design plans.
W34 A separate irrigation meter and connection to main with an approved backflow prevention device is required to serve common landscaped areas and shall be displayed on the plans.	Comment noted; condition shall be met prior to approval of engineering design plans.
W35 Provide peak irrigation flows per zone or control valve to verify size of irrigation meter and reduced pressure principle backflow device on Landscape Plans.	Peak irrigation calculations will be provided on construction drawing set.
W36 All existing and proposed public sewer mains on site shall show on plans an access road, turf block, or pavement that can support H-20 loading for sewer vactor truck. Access road or pavement must have a minimum turning radius of 46-feet (outer wheel) for curb clearance and a wall clearance of 46'-11". Truck length is 41'-6". No parking spaces shall be designated around a public manhole such that it would impede the maintenance of the sewer main by a City vactor truck.	Comment noted.
W37 Provide stationing and offsets for existing and proposed water service connections and sewer laterals on plans.	Comment noted.
W38 Where private sewer system is shared with other tenants, a Property Management Company and CC&Rs should address the maintenance, repair, and replacement of "shared" sewer lateral or facilities.	Comment noted.
W39 Any unused water services or sewer laterals by the proposed development or redevelopment, shall be abandoned in accordance with Water Utilities requirements.	Comment noted.
<b><u>The following conditions of approval shall be met prior to building permit issuance.</u></b>	
W40 Show location and size of existing and proposed water meter(s) on site plan of building plans. Show waterline from proposed meter to connection point to building or residence.	Comment noted.
W41 Show location and size of existing and proposed sewer lateral(s) from property line or connection to sewer main to connection point at building or residence.	Comment noted.

COMMENT		RESPONSE
W42	Provide table of fixture count and flow calculations per the latest adopted California Plumbing Code to size water meter and service lines on site plan of building plans.	Retail program, kitchen, and pool design are not progressed at the entitlement stage to establish accurate plumbing fixture schedules. Will coordinate with civil to establish water demand.
W43	If a larger water meter is required, then the incremental increase in water and sewer buy-in fees between the existing and proposed meter size will be charged. If the existing water service connection is less than the proposed meter size, then the Owner/Developer will be required to abandon the existing water service and show on engineering and building plans the location and size of the new service connection to public main.	Comment noted.
W44	Provide drainage fixture unit count per the latest adopted California Plumbing Code to size sewer lateral for property.	Retail program, kitchen, and pool design are not progressed at the entitlement stage to establish accurate plumbing fixture schedules. Will coordinate with civil to establish sewer demand.
W45	If a Grease Interceptor is required per City of Oceanside Ordinance 07-OR0021-1, then building plans must show sizing calculations per the latest California Plumbing Code, the location, the make and model, and plumbing schematic showing the required appurtenances at each building sewer lateral.	Sizing calculations will be provided in a subsequent submittal.
W46	If a Sand and Oil Separator is required, then building plans must show drainage fixture unit count and calculations per the latest California Plumbing Code to size oil and sand separator and show on plans the location, make and model of separator, inlet/outlet piping, and a plumbing schematic of the separator along with the required appurtenances at each building sewer lateral.	Drainage fixture counts and calculations will be provided in a subsequent submittal.
W47	Water and Wastewater Buy-in fees and the San Diego County Water Authority Fees are to be paid to the City at the time of Building Permit issuance per City Code Section 32B.7.	Comment noted.
<b>BUILDING DIVISION CONDITIONS</b>		
1	The granting of approval under this action shall in no way relieve the applicant/project from compliance with all Current State and local building codes. Refer to Building Division Conditions for all applicable codes.	See updated information on sheet A0.1.
2	The building plans for this project are required by State law to be prepared by a licensed architect or engineer.	Comment noted.
3	Compliance with the Federal Clean Water Act (BMP's) shall be demonstrated on the plans.	The project has been designed to comply with the Federal Clean Water Act and applicable BMPs shall be provided on project plans.
4	Separate/unique addresses may be required to facilitate utility releases. Verification that the addresses have been properly assigned by the City's Planning Division shall accompany the Building Permit application.	Comment noted.
5	A form or foundation survey shall be required prior to the placement of concrete to show the location of the new structure in respect to the property lines, known easements, and known setback lines. By obtaining a form survey the location of the foundation is checked prior to the placement of concrete, and can save costly corrective measures in case of an encroachment of a property line.	Comment noted.
6	Site development, parking, access into buildings and building interiors shall comply WITH ALL CURRENT State of California Accessibility Code where required.	Comment noted. See also updated information on sheet A1.3.

**Ocean K&L Red-Use Plan Resubmittal - Responses to City A Review Letter**

COMMENT	RESPONSE
7 All electrical, communication, CATV, etc. service lines within the exterior lines of the property shall be underground (City Code Sec. 6.30).	All electrical will be underground.
8 A complete set of Soil Reports, Structural Calculations, Energy Calculations, & California Title 24 Energy Form(s) shall be required at time of plans submittal to the Building Division for plan check.	Comment noted.
9 All outdoor lighting shall meet Chapter 39 of the City Code (Light Pollution Ordinance) and shall be fully shielded.	Exterior lighting will meet this requirement.
10 City of Oceanside Enforces the 2016 California Green Building Standards Code. <u>A Construction Waste Management Plan shall be required at time of plans submittal to the Building Division for plan check.</u>	A construction waste management plan will be provided to fulfill the identified requirements.
5.408.1 Construction waste diversion. Recycle and/or salvage for reuse a minimum of 65 percent of the nonhazardous construction and demolition waste in accordance with Section 5.408.1.1, 5.408.1.2 or 5.408.1.3; or meet a local construction and demolition waste management ordinance, whichever is more stringent.	
5.408.1.1 Construction waste management plan. Where a local jurisdiction does not have a construction and demolition waste management ordinance that is more stringent, submit a construction waste management plan that:	
1. Identifies the construction and demolition waste materials to be diverted from disposal by efficient usage, recycling, reuse on the project or salvage for future use or sale.	
2. Indicates if construction and demolition waste materials will be sorted on-site (source-separated) or bulk mixed (single stream).	
3. Identifies dispersion facilities where construction and demolition waste material collected <del>will be taken</del>	
4. Specifies that the amount of construction waste and demolition materials diverted shall be calculated by weight or volume, but not by both.	
11 Short-term bicycle parking. Provide permanently anchored bicycle racks within 200 feet of the visitors' entrance, readily visible to passers-by, for 5% of new visitor motorized vehicle parking spaces being added, with a minimum of one two-bike capacity rack. CGBSC 5.106.4.1.1.	See sheet A 1.3 for parking, bicycle parking and loading information; EV Charging stations will be provided.
12 Selective coordination information for Emergency and Elevator systems shall be provided as needed. National Electrical Code requirements for selective coordination are mandatory for certain electrical systems where maximum reliability of power is critical. The 2014 edition of the NEC' includes selective coordination requirements for Elevator Circuits and Emergency Systems. FiEC 240.12, 620.62, 700, 200.16, 700.27 and 701.18.	Selective coordination for emergency and elevator systems will be provided.
<ul style="list-style-type: none"> <li>Where selective coordination is required by code, the coordination study/report that identifies the exact over-current devices utilized to achieve the coordination must be provided with the electrical plans.</li> </ul>	Construction documents and specifications will require the electrical contractor to provide a coordination study based on manufacturer of equipment. Study will need to show the electrical equipment is fully coordinated prior to ordering equipment.

COMMENT	RESPONSE
<p>• "The design professional must either stamp the selective coordination report if prepared by him/her or a letter attesting that the contents of the attached report have been reviewed and is acceptable. The specified over current protection devices required to achieve a coordinated system must be identified on the plans and on all electrical power distribution equipment that the coordination requirement applies to or in a document that resides near the pertinent electrical equipment. If the selective coordination information cannot be provided at the time of plans submittal due to the distribution equipment model/type and associated over-current components not yet being known, the electrical plans can be approved with <u>a deferred submittal condition whereby final approval of the electrical installation will be withheld until two sets of said report, letter and revised plans have been received, reviewed and approved by plans examination and the installation verified by inspections</u>". This policy will provide compliance with the code for selective coordination and also ensure the Design Professional has properly reviewed and approved the final system as installed. This Jurisdiction will then record the letter and subsequent study into the permanent record for that project.</p>	<p>Coordination study shall be part of submittals for the design professional (Syska Hennessy) to review and approve.</p>
<p>This policy will provide compliance with the code for selective coordination and also ensure the Design Professional has properly reviewed and approved the final system as installed. This Jurisdiction will then record the letter and subsequent study into the permanent record for that project.</p>	<p>Syska Hennessy will review and approve coordination study.</p>
<p>13 San Diego County Department of Environmental Health approval is required for all new food businesses and public pools.</p>	<p>Comment noted.</p>
<p>14 Buildings four or more stories in height must comply with City of Oceanside Mid-Rise Ordinance.</p>	<p>The project has been designed to comply with the City's Mid-Rise Ordinance.</p>
<p>15 Elevator car must be sized to accommodate an emergency gurney sized 84 x 24 inches in the horizontal position.</p>	<p>Comment noted.</p>
<p>16 An enclosed elevator lobby - separating the elevator shaft enclosure doors from each floor with fire partitions. - shall be provided at each floor where an elevator shaft enclosure connects more than two stories in A, E, H, I, L, R-I, R-2, and R-2.1 occupancies and more than three stories in all other occupancies (CBC 3006.2, CBC 3006.3).</p>	<p>Comment noted.</p>
<p>17 Plans must specify, as applicable, the type of automatic sprinkler system - NFPA 13, NFPA 13R, or NFPA 13D - installed in the building.</p>	<p>See A 1.3 for sprinkler information.</p>
<p>18 The construction documents and/or site plan should indicate the location and required number of designated parking stalls. These parking spaces should be marked "CLEAN AIR/VANPOOL/EV." The markings should be visible when a clean air vehicle is parked. In other words, if the front of the vehicle goes into the parking stall first, the markings should be visible at the back end of the vehicle. Lettering should be at least 8 inches high. The CLEAN AIR/VANPOOL/EV parking stalls may be located anywhere on the site and do not require a preferential location. Refer to Table 5.106.5.2 in CAL Green to ensure that the correct number of designated parking stalls is provided. Include all parking spaces in the calculation. 2016 Cal Green Section 5.106.5.2</p>	<p>See A 1.3 for parking, bicycle parking and loading information.</p>

COMMENT	RESPONSE
<p>19 The developer shall monitor, supervise and control all building construction and supportive activities so as to prevent these activities from causing a public nuisance, including, but not limited to, strict adherence to the following:</p>	<p>Comment noted.</p>
<p>a) Building construction work hours shall be limited to between 7 a.m. and 6 p.m. Monday through Friday, and on Saturday from 7 a.m. to 6 p.m. for work that is not inherently noise-producing. Examples of work not permitted on Saturday are concrete and grout pours, roof nailing and activities of similar noise-producing nature. No work shall be permitted on Sundays and Federal Holidays (New Year's Day, Memorial Day, July 4th, Labor Day, Thanksgiving Day, and Christmas Day) except as allowed for emergency work under the provisions of the Oceanside City Code Chapter 38 (Noise Ordinance).</p>	<p>Construction schedule shall be in compliance with the noted regulations.</p>
<p>b) The construction site shall be kept reasonably free of construction debris as specified in Section 13.17 of the Oceanside City Code. Storage of debris in approved solid waste containers shall be considered compliance with this requirement. Small Amounts of construction debris may be stored on site in a neat, safe manner for short periods of time pending disposal.</p>	<p>Construction shall comply with the noted requirements for debris storage.</p>
CEQA REVIEW	
<p>Staff has conducted a preliminary review of the proposed project pursuant to Section 15061 of the CEQA Guidelines and has determined that the project does not qualify for either a statutory or categorical exemption. While revisions to the project plans resulting from the ARC review process are not likely to affect or change this CEQA determination, nevertheless, staff will re-review the CEQA determination issue following re-submission.</p> <p>At such time that the project design has been revised to satisfactorily address the Departments' comments and requirements outlined herein, and the City and the applicant have jointly concurred on the proposed project description, the CEQA review process may then proceed. The policy of the City of Oceanside is to allow development applicants to prepare and submit California Environmental Quality Act (CEQA) documentation for their proposed projects. However, pursuant to Section 15050 of the CEQA Guidelines, the City, as the "Lead Agency," retains ultimate responsibility for determining whether such documents reflect the independent judgment of the City. Thus, all CEQA documents are subject to Planning Division review and comment, and subject to final acceptance by the City Planner prior to the posting of any CEQA-related notices (i.e., "Notice of Intent to Adopt a Negative Declaration/Mitigated Negative Declaration" or "Notice of Completion").</p>	<p>Applicant and consultant team will coordinate with City staff on the environmental review requirements, as noted.</p>

**EXHIBIT B**

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July 25, 2022

**Via Email**

Chair Tom Rosales and Commissioners  
City of Oceanside Planning Commission  
City Council Chambers  
300 North Coast Highway  
Oceanside, CA 92054  
**Email:** [PlanningCommission@oceansideca.org](mailto:PlanningCommission@oceansideca.org)

**Re: Comments to Planning Commission on Agenda Item No. 6 for the Ocean KAMP Project in the City of Oceanside, County of San Diego (SCH Number 2006111033)**

Dear Chair Rosales and Commissioners:

We are writing on behalf of San Diegans for Sustainable, Economic and Equitable Development ("SD SEED") to provide comments on the Staff Report for the Ocean KAMP Project (Tentative Map (T19-00004),<sup>1</sup> Development Plan (D19-00016),<sup>2</sup> and Conditional Use Permit ("CUP") (CUP19-00021)<sup>3</sup> (SCH Number 2006111033)) ("Project"), as well as the Final Supplemental Environmental Impact Report ("FSEIR") and Responses to Comments ("RTC") prepared pursuant to the California Environmental Quality Act ("CEQA").<sup>4</sup> The Project is located in the City of Oceanside ("City") on approximately 92.3 acres at 3480 Mission Avenue,

<sup>1</sup> The Tentative Map proposes to divide the Project site into sixteen (16) lots, of which nine (9) lots would be for residential uses. City of Oceanside, *Draft Supplemental Environmental Impact Report; Ocean KAMP Resort, Spa, Adventure* at 1-7 (August 2021)(hereinafter "DSEIR").

<sup>2</sup> The Project site zoning is Community Commercial ("CC"). DSEIR at 3-5. The Land Use Element of the City's General Plan specifies that the CC designation is to provide the community with commercial centers with commercial establishments as well as entertainment and dining. *Id.* Residential and open space uses are not allowed by right in the CC designation but may be permitted with the approval of a Mixed-Use Development Plan and a CUP. *Id.*

<sup>3</sup> A CUP is required for the proposed hotel uses and approval of the Mixed-Use Development Plan, as described above in Footnote 2. DSEIR at 1-7.

<sup>4</sup> City of Oceanside, *Final Supplemental Environmental Impact Report; Ocean KAMP Resort, Spa, Adventure* (July 2022)(hereinafter "FSEIR" and "RTC").

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Oceanside, California 92054.<sup>5</sup> The Project site includes approximately 15 parcels, comprised of APNs 160-270-31, -79, and -82; 160-280-14, -48, -49, -50, -51, -53, -54, and -55; 160-290-58, -60, -63; as well as 160-270-77.<sup>6</sup>

The Project proposes a mixed-use development consisting of residential, commercial, and open space uses.<sup>7</sup> The Project proposes approximately 35 acres of commercial uses within the central/southwestern portion of the site and approximately 36 acres of residential uses within the northern and eastern portions of the site.<sup>8</sup> The remaining 20 acres of the site are proposed to be preserved as open space, including a 4-acre stepping-stone wildlife corridor located along the eastern property boundary.<sup>9</sup> Commercial uses are proposed to include a 300-key resort hotel, hotel conference buildings, a surf lagoon and beach club, and commercial buildings with approximately 126,400 square feet (“sf”) of office, retail and restaurants.<sup>10</sup> Total square footage of the resort, commercial, and conference facilities is approximately 472,850 sf.<sup>11</sup> A maximum of 700 multi-family residential dwelling units are proposed within nine residential lots on the Project site.<sup>12</sup>

The City states that the FSEIR is intended to supplement the Pavilion Final Environmental Impact Report (“Pavilion FEIR”), which was certified by the City on November 19, 2008.<sup>13</sup> Pursuant to CEQA Guidelines sections 15162 and 15163, the FSEIR only evaluates the environmental impacts that are potentially greater than effects disclosed in the Pavilion FEIR, and omits an analysis of effects expected to be similar or identical to those assessed for the prior Project.<sup>14</sup> The DSEIR asserts that “[m]odifications particularly relate to potential changes in proposed land uses associated with the new Project (i.e., mixed-use, including residential development, versus the primarily retail uses previously analyzed in the Pavilion FEIR) and/or where changes in regulations or City plans may require new analysis.”<sup>15</sup>

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<sup>5</sup> FSEIR at S-1.

<sup>6</sup> *Id.* at S-2.

<sup>7</sup> *Id.*

<sup>8</sup> *Id.*

<sup>9</sup> *Id.*

<sup>10</sup> *Id.*

<sup>11</sup> *Id.*

<sup>12</sup> *Id.*

<sup>13</sup> *Id.* at 1-2.

<sup>14</sup> *Id.*

<sup>15</sup> *Id.*

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The FSEIR fails in significant aspects to perform its function as an informational document that is meant “to provide public agencies and the public in general with detailed information about the effect which a proposed project is likely to have on the environment” and “to list ways in which the significant effects of such a project might be minimized.”<sup>16</sup> First, the decision to supplement the Pavilion FEIR for the Ocean KAMP Project pursuant to CEQA Guidelines section 15163 is a prejudicial abuse of discretion. The Ocean KAMP Project is an entirely new project with new and substantially more severe significant impacts, requiring more than minor changes to the Pavilion project’s FEIR.<sup>17</sup> The City’s decision to supplement the environmental analysis in the Pavilion FEIR rather than prepare a new project-level EIR is not supported by substantial evidence and an EIR is required.

Second, the information used to establish existing conditions for transportation impacts is inaccurate and unsupported, thereby undermining meaningful public review. The FSEIR erroneously finds that the Project’s commercial and hotel components would generate less Vehicle Miles Travelled (“VMT”) than the purported baseline because the analysis utilizes hypothetical conditions assuming the undeveloped Pavilion project is constructed and operating in the baseline, which also improperly skews the Project’s VMT impacts analysis.

Third, the FSEIR fails to adequately disclose and mitigate the new and more severe impacts related to transportation/traffic, air quality, water supply, and biological resources. An agency cannot conclude that an impact is less than significant unless it produces rigorous analysis and concrete substantial evidence justifying the finding.<sup>18</sup> As set forth below, the FSEIR, in tandem with the Pavilion FEIR, does not comply with these requirements of CEQA. The City of Oceanside, as the lead agency, must withdraw the FSEIR and prepare a legally adequate, project-level EIR to address the significant impacts described in this comment letter and the attached expert comments.

Finally, the Project fails to comply with the mandatory requirements under the Subdivision Map Act and the City’s Subdivision Ordinance because substantial evidence demonstrates that the Project is likely to have new and more severe impacts on air quality, transportation, biological resources, and water supply than

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<sup>16</sup> *Laurel Heights Improvement Assn. v. Regents of University of California* (1988) 47 Cal.3d 376, 391.

<sup>17</sup> See 14 C.C.R. § 15163(a)(2). Per CEQA Guidelines Section 15163, a Supplemental EIR can be prepared if only *minor* additions or changes would be necessary to make the previous EIR adequately apply to the project in the changed situation.

<sup>18</sup> *Kings Cty. Farm Bur. v. Hanford* (1990) 221 Cal.App.3d 692, 732.

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previously analyzed in the Pavilion FEIR, and for which the City failed to require feasible and effective mitigation in the FSEIR. Therefore, the Planning Commission cannot make the requisite findings to approve the Project's Tentative Map.

These comments demonstrate that the FSEIR's analyses remain substantially unsupported, inaccurate and incomplete. The RTC fails to meaningfully respond to many of the technical comments on the Draft Supplemental Environmental Impact Report ("DSEIR") and fails to resolve many of the legal and evidentiary deficiencies we previously identified in the DSEIR.<sup>19</sup> SD SEED therefore urges the Planning Commission to direct City staff to withdraw the FSEIR and prepare a legally adequate, project-level EIR to address the new and more severe significant impacts described in this comment letter and in the attached expert comments.

We prepared our comments with the assistance of technical experts, including air quality and public health experts Matt Hagemann, P.G., C.Hg., and Paul E. Rosenfeld, Ph.D., at Soil / Water / Air Protection Enterprise ("SWAPE"); traffic and transportation expert Daniel T. Smith Jr., P.E.; and biological resources expert Scott Cashen, M.S. SWAPE's comments, Mr. Hagemann's *curriculum vitae*, and Mr. Rosenfeld's *curriculum vitae* are attached to this letter as Exhibit A. Mr. Smith's comments and his *curriculum vitae* are attached to this letter as Exhibit B. Mr. Cashen's comments and his *curriculum vitae* are attached to this letter as Exhibit C. We reserve the right to supplement these comments at a later date, and at any later proceedings related to this Project.<sup>20</sup>

## I. STATEMENT OF INTEREST

SD SEED is an unincorporated association of individuals and labor organizations formed to ensure that the construction of major urban projects in the San Diego region proceeds in a manner that minimizes public and worker health and safety risks, avoids or mitigates environmental and public service impacts, and fosters long-term sustainable construction and development opportunities. The

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<sup>19</sup> Comments on the Draft Supplemental Environmental Impact Report for the Draft Supplemental Environmental Impact Report for the Ocean KAMP Project in the City of Oceanside, County of San Diego (SCH Number 2006111033) (October 8, 2021)(hereinafter, "DSEIR Comments").

<sup>20</sup> Gov. Code § 65009(b); Pub. Res. Code § 21177(a); *Bakersfield Citizens for Local Control v. Bakersfield* (2004) 124 Cal. App. 4th 1184, 1199-1203; *See also Galante Vineyards v. Monterey Water Dist.* (1997) 60 Cal. App. 4th 1109, 1121.

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association includes the United Association of Plumbers, Steamfitters, Refrigeration & HVAC Service Technicians Local 230, the International Association of Bridge and Structural Ironworkers Local 229, and Sprinkler Fitters Local 669, along with their members, their families, and other individuals who live and work in the San Diego region.

Individual members of SD SEED and its member organizations include City of Oceanside residents Omar Rivera, Lance Wulff, and Darin Thibodeau. These individuals live, work, recreate, and raise their families in the City and surrounding communities. Accordingly, they would be directly affected by the Project's environmental and health and safety impacts. Individual members may also work on the Project itself. They will be first in line to be exposed to any health and safety hazards that exist onsite.

SD SEED has an interest in enforcing environmental laws that encourage sustainable development and ensure a safe working environment for its members. Environmentally detrimental projects can jeopardize future jobs by making it more difficult and more expensive for business and industry to expand in the region, and by making the area less desirable for new businesses and new residents. Continued environmental degradation can, and has, caused construction moratoriums and other restrictions on growth that, in turn, reduce future employment opportunities.

SD SEED supports the development of commercial, research and development, and office projects where properly analyzed and carefully planned to minimize impacts on public health, climate change, and the environment. Commercial projects should avoid adverse impacts to air quality, public health, climate change, noise, water, and traffic, and must incorporate all feasible mitigation to ensure that any remaining adverse impacts are reduced to the maximum extent feasible. Only by maintaining the highest standards can commercial development truly be sustainable.

## **II. LEGAL BACKGROUND**

CEQA is designed to inform decision-makers and the public about the potential, significant environmental effects of a project.<sup>21</sup> "CEQA's fundamental goal [is] fostering informed decision-making."<sup>22</sup> "The purpose of CEQA is not to generate paper, but to compel government at all levels to make decisions with

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<sup>21</sup> 14 C.C.R. § 15002(a)(1).

<sup>22</sup> *Laurel Heights Improvement Assn.*, 47 Cal.3d at 402.

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environmental consequences in mind.”<sup>23</sup>

“The foremost principle in interpreting CEQA is that the Legislature intended the act to be read so as to afford the fullest possible protection to the environment within the reasonable scope of the statutory language.”<sup>24</sup> CEQA has two primary purposes. First, CEQA is designed to inform decision makers and the public about the potential, significant environmental effects of a project.<sup>25</sup> “Its purpose is to inform the public and its responsible officials of the environmental consequences of their decisions before they are made. Second, CEQA requires public agencies to avoid or reduce environmental damage when “feasible” by requiring “environmentally superior” alternatives and all feasible mitigation measures.”<sup>26</sup>

When a previously approved project for which an EIR was prepared is modified, CEQA requires the lead agency to conduct subsequent or supplemental environmental review when one or more of the following events occur:

- (a) Substantial changes are proposed in the project which will require major revisions of the environmental impact report;
- (b) Substantial changes occur with respect to the circumstances under which the project is being undertaken which will require major revisions in the environmental impact report; or
- (c) New information, which was not known and could not have been known at the time the environmental impact report was certified as complete, becomes available.<sup>27</sup>

In assessing the need for subsequent or supplemental environmental review, the lead agency must determine, on the basis of substantial evidence in light of the whole record, if one or more of the following events have occurred:

- (1) Substantial changes are proposed in the project which will require major revisions of the previous EIR due to the involvement of new significant effects or a substantial increase in the severity of previously identified effects;

<sup>23</sup> *Bozung v. LAFCO* (1975) 13 Cal.3d 263, 283.

<sup>24</sup> *Communities for a Better Env't. v. Cal. Res. Agency* (2002) 103 Cal. App.4th 98, 109.

<sup>25</sup> 14 CCR § 15002(a)(1).

<sup>26</sup> 14 CCR§ 15002(a)(2) and (3); *See also Berkeley Keep Jets Over the Bay Com. v. Bd. of Port Comrs.* (2001) 91 Cal.App.4th 1344, 1354; *Citizens of Goleta Valley v. Board of Supervisors* (1990) 52 Cal.3d 553, 564.

<sup>27</sup> Pub. Resources Code § 21166; CEQA Guidelines § 15162.

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- (2) Substantial changes occur with respect to the circumstances under which the project is undertaken which will require major revisions of the previous EIR due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects; or
- (3) New information of substantial importance, which was not known and could not have been known with the exercise of reasonable diligence at the time the previous EIR was certified as complete or the negative declaration was adopted, shows any of the following:
  - (A) The project will have one or more significant effects not discussed in the previous EIR or negative declaration;
  - (B) Significant effects previously examined will be substantially more severe than shown in the previous EIR;
  - (C) Mitigation measures or alternatives previously found not to be feasible would in fact be feasible, and would substantially reduce one or more significant effects of the project, but the project proponents decline to adopt the mitigation measure or alternative; or
  - (D) Mitigation measures or alternatives which are considerably different from those analyzed in the previous EIR would substantially reduce one or more significant effects on the environment, but the project proponents decline to adopt the mitigation measure or alternative.<sup>28</sup>

“The subsequent review provisions... are [] designed to ensure that an agency that proposes changes to a previously approved project ‘explore[s] environmental impacts not considered in the original environmental document.’ [internal citation omitted]”<sup>29</sup>

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<sup>28</sup> 14 C.C.R. §§ 15162(a)(1)-(3).

<sup>29</sup> *Friends of Coll. of San Mateo Gardens v. San Mateo Cty. Cmty. Coll. Dist.* (2016) 1 Cal. 5th 937, 951.

**III. THE DECISION TO SUPPLEMENT THE PAVILION FEIR FOR THIS PROJECT IS A PREJUDICIAL ABUSE OF DISCRETION AND A NEW PROJECT EIR MUST BE PREPARED**

The basic rule for subsequent and supplemental EIRs “is that whenever there is an already approved EIR and a ‘substantial’ change in either the project, the surrounding circumstances, or new information that could not have been discovered when the first EIR was prepared, either a subsequent *or* a supplemental EIR must be prepared.”<sup>30</sup> CEQA Guidelines Section 15163 states that a supplemental EIR may be prepared if “only *minor* additions or changes would be necessary to make the previous EIR adequately apply to the project in the changed situation.”<sup>31</sup> Because of this limited situation in which a Supplemental EIR can be used, CEQA allows it to contain “only the information necessary to make the previous EIR adequate for the project as revised.”<sup>32</sup> In all other cases, a new EIR or subsequent EIR is required to fully analyze the revised project and its impacts. Here, the Project, as currently proposed, is an entirely new project that requires substantially more than minor modifications to the Pavilion project’s FEIR analyzed over ten years ago. Accordingly, the City should have prepared a new project-level EIR.

**A. The FSEIR’s Determination to Proceed with a Supplemental EIR is Not Supported by Substantial Evidence**

To proceed with a SEIR, the question is whether “the original document retains some relevance to the ongoing decision-making process” and informational value.<sup>33</sup> The court in *California Coastkeeper All. v. State Lands Com.* examined when the supplemental review provisions under Section 15163 apply, concluding that “CEQA Guidelines section 15163 applies when ‘an EIR can be made adequate by additions or changes that *respond to a limited set of issues*’...”<sup>34</sup> “Whether an

<sup>30</sup> *City of Irvine v. Cnty. of Orange* (2015) 238 Cal. App. 4th 526, 538–39.

<sup>31</sup> 14 C.C.R. § 15163(a)(2) (emphasis added).

<sup>32</sup> *Id.* at § 15163(b).

<sup>33</sup> *Friends of Coll. of San Mateo Gardens*, 1 Cal. 5th at 951-953.

<sup>34</sup> *California Coastkeeper All. v. State Lands Com.* (2021) 64 Cal. App. 5th 36, 59, *review denied* (July 28, 2021)(emphasis added). Here, the Project changes and changed circumstances are distinguishable from the changes evaluated in *California Coastkeeper All. v. State Lands Com.*. There, the court held that substantial evidence supported the California State Land Commission’s determination that changes to a water desalination plant project, including the installation of one-millimeter stainless steel wedge wire screens and three-port diffusers, and reduction in seawater intake volume, would necessitate only minor additions or changes to make the previous EIR adequate such that the agency could proceed pursuant to the supplemental EIR provisions under CEQA and CEQA Guidelines. *California Coastkeeper All.*, 64 Cal. App. 5th at 61. By way of

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initial environmental document remains relevant despite changed plans or circumstances—like the question whether an initial environmental document requires major revisions due to changed plans or circumstances—is a predominantly factual question. ...A court's task on review is [] to decide whether the agency's determination is supported by substantial evidence;...."<sup>35</sup>

Here, the decision to proceed under CEQA's supplemental review provisions is not supported by substantial evidence and the result of that decision is the consideration of a limited scope of issues as compared to a new project EIR.<sup>36</sup> The stale and outdated analysis in the Pavilion FEIR fails to retain informational value relevant to the decision-making process for this Project. In response, RTC J-2 sets forth the conclusory assertion that "[t]he comment does not accurately describe the project or the applicable law."<sup>37</sup> To the contrary, the previously submitted comments on the DSEIR identified significant differences between the current Project and the former Pavilion Project, which are not adequately addressed by limited and minor revisions to the outdated Pavilion FEIR. As summarized below, these comments were also supported by relevant CEQA caselaw and factual references directly from the DSEIR. RTC J-2 did not respond to the evidence set forth in our comments and improperly dismissed these comments on unsupported grounds.

For example, the Ocean KAMP Project includes an entirely new residential component that was not part of the Pavilion project, which consisted of a proposed 950,000 sf shopping center with associated retail uses.<sup>38</sup> Thus, none of the environmental impacts assessed in the Pavilion FEIR were analyzed with regards to residential uses. Now, approximately thirty-six (36) acres of the Project site will be dedicated to 700 new residential units (e.g., townhomes, condominiums, apartments, and senior housing).<sup>39</sup> Residential uses present a host of new

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comparison, this Project is proposing entirely new land uses, additional lots, 300,000 CY of additional fill material, entirely new design features, different materials, and added multiple story structures with associated increased heights. As discussed herein and in the attached expert reports, the changes proposed by the Project result in a new and different project than previously analyzed and increase the severity of a multitude of significant impacts that require substantial changes to the Pavilion FEIR. For the foregoing reasons, electing to supplement the Pavilion FEIR for this Project under CEQA Guidelines Section 15163 is a prejudicial abuse of discretion.

<sup>35</sup> *Friends of Coll. of San Mateo Gardens*, 1 Cal. 5th at 952-953.

<sup>36</sup> DSEIR Comments at 8-12.

<sup>37</sup> RTC at 90.

<sup>38</sup> FSEIR at 1-2.

<sup>39</sup> *Id.* at 2-3.

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significant impacts that were not adequately analyzed in the Pavilion FEIR. For example, residential land uses add “additional noise attenuation considerations,” and can increase the severity of the significant impacts evaluated in the Pavilion FEIR, such as impacts to wildlife and habitats.<sup>40</sup> This Project also proposes entirely new commercial uses, including a 300-room hotel with associated facilities and surf lagoon.<sup>41</sup> The Pavilion FEIR did not consider these uses, thereby offering no relevance or informational value to the analysis of this Project. Finally, the new recreational amenities and open space areas proposed by this Project were not examined in the Pavilion FEIR (i.e., “[a]pproximately 20 acres of the site would be dedicated open space, offering opportunities for walking, hiking, running, and biking.”).<sup>42</sup>

Although the current Project shares the same site as the Pavilion project, the requested Tentative Map entitlement for this Project is for twenty three (23) lots—nine (9) of which would be for residential uses—as compared to the ten (10) lots evaluated in the Pavilion FEIR.<sup>43</sup> This Project also requires 300,000 cubic yards (“CY”) of fill material for grading activities in addition to the 496,000 CY of fill needed to raise the site for the former project.<sup>44</sup> These proposed modifications render the prior Pavilion FEIR wholly irrelevant to the decision-making process for this Project.

Finally, the current Project design, drawings, and materials are entirely different from the former project. For example, the resort component of this Project includes new features, like a three-acre surf lagoon/wave pool that is described as an “uncharacteristic land use in the City of Oceanside...”<sup>45</sup> Moreover, as compared to the project assessed in the Pavilion FEIR, this Project “would increase the number of multiple story structures (and associated increased heights).”<sup>46</sup> Introducing “uncharacteristic land use[s],” new materials, and substantially

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<sup>40</sup> *Id.* at 4.2-7; Expert comments by Scott Cashen on DSEIR (September 30, 2021)(hereinafter “Cashen DSEIR Comments”); Expert comments by Scott Cashen on FSEIR (July 24, 2022)(“Exhibit C”)(hereinafter “Cashen FSEIR Comments”).

<sup>41</sup> *Id.* at 2-4.

<sup>42</sup> *Id.* at 2-9.

<sup>43</sup> City of Oceanside, *Staff Report for the Ocean KAMP Project* (July 22, 2022)(hereinafter “Staff Report”) The FSEIR states that the Project only proposes to subdivide sixteen lots total, which is inconsistent with the Staff Report’s description of the requested Tentative Map. FSEIR at 2-6.

<sup>44</sup> *Id.* at 2-4.

<sup>45</sup> DSEIR, Appendix G at 5.

<sup>46</sup> FSEIR at 4.1-4.

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different designs materially changes the environmental impact analysis in the Pavilion FEIR, especially with regards to impacts on biological resources.<sup>47</sup>

RTC J-9 also fails to adequately respond to these comments by reiterating that “[t]he project occurs on the same site of the Pavilion project...”<sup>48</sup> Even so, the fact that the two projects are proposed on the same site does not overcome that the Ocean KAMP Project is an entirely new project with new uses, densities, designs, materials, and significant impacts. The Pavilion FEIR fails to retain informational value to the due to these changes. While RTC J-9 admits that the proposed uses for this Project are entirely different from the former Pavilion project, the Response dismisses our comments with the conclusory assertion that “the possible impacts of the modified project are within the scope of what is permissible under Section 15163 of the state CEQA Guidelines.”<sup>49</sup> To the contrary, and for the reasons stated herein and in the attached expert reports, the changes proposed by the Project will result in new or substantially more severe significant impacts on air quality, biological resources, transportation, and water resources that require a new project-level EIR.

In conclusion, the Ocean KAMP Project is far from an iteration of the former Pavilion project such that the Pavilion FEIR lacks informational value to the present decision-making process.<sup>50</sup> Moreover, changed circumstances under which the Project is undertaken require more than “minor [] changes” to make the Pavilion FEIR adequate for the Project. The Ocean KAMP Project is an entirely new project for which a new project-level EIR is required. RTCs J-2 and J-9 fail to adequately respond to this comment and do not provide substantial evidence to support the determination that the substantial changes in uses, size, and design of the former Pavilion project to the current Project only merit supplemental treatment.

## **B. The Ocean KAMP Project Requires Preparation of an EIR**

CEQA mandates that an EIR “provide public agencies and the public in general with detailed information about the effect which a proposed project is likely to have on the environment; to list ways in which the significant effects of such a

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<sup>47</sup> See e.g., Cashen DSEIR Comments and Cashen FSEIR Comments.

<sup>48</sup> RTC at 98.

<sup>49</sup> RTC at 98.

<sup>50</sup> See *Friends of Coll. of San Mateo Gardens*, 1 Cal. 5th at 951-952 (“[U]nder CEQA, when there is a change in plans, circumstances, or available information after a project has received initial approval, the agency’s environmental review obligations ‘turn[ ] on the value of the new information to the still pending decision-making process.’ [internal citation omitted]”

project might be minimized; and to indicate alternatives to such a project.”<sup>51</sup> Unlike an EIR, a SEIR “need only contain the information necessary to make the previous EIR adequate for the project as revised.”<sup>52</sup> Thus, the analysis of environmental effects in an SEIR is limited to only those impacts that may result in potentially greater effects than disclosed in the original document.<sup>53</sup> Elements deemed to be unchanged are not even examined in an SEIR.<sup>54</sup>

We previously commented that the DSEIR analyzed an impermissibly narrow scope of environmental impacts, despite the Project’s new or substantially more severe significant impacts, and failed to require new mitigation measures to reduce significant impacts to less than significant levels, as supported by technical expert comments.<sup>55</sup> We also commented that as a result, the DSEIR’s alternatives analysis was improperly constrained and only considered a Reduce Project Alternative in addition to the No Project Alternative, which is statutorily required by CEQA Guidelines Section 15126.6, subdivision (e). The DSEIR did not meaningfully analyze alternatives that would avoid or less impacts in these other resource areas, as required by CEQA.<sup>56</sup>

RTC J-10 inadequately responds to these comments by summarizing the FSEIR’s contents, which include a section on environmental effects requiring additional analysis (Section 4.0), environmental effects adequately analyzed in the Pavilion FEIR (Section 5.1), and environmental effects found not to be significant (Section 5.2).<sup>57</sup> However, the analysis in each section provides varying degrees of detail given the City’s unsupported determination that only certain analyses needed to be supplemented. As a result, the FSEIR considered a substantially more limited scope of issues than what would have been considered in a new project-level EIR.

Notably, the following effects were only “addressed briefly” in the FSEIR: Agriculture and Forestry Resources; Air Quality; Biological Resources; Cultural (and Tribal Cultural) Resources; Geology and Soils; Greenhouse Gas Emissions; Hazards and Hazardous Materials; Hydrology and Water Quality; Mineral

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<sup>51</sup> Pub. Res. Code § 21061.

<sup>52</sup> 14 C.C.R. § 15163(b).

<sup>53</sup> *Id.*

<sup>54</sup> *Id.*

<sup>55</sup> Cashen DSEIR Comments; Expert comments by SWAPE (September 29, 2021)(hereinafter “SWAPE DSEIR Comments”); Expert comments by Daniel Smith at 2 (September 27, 2021)(hereinafter “Smith DSEIR Comments”).

<sup>56</sup> Pub. Res. Code, § 21002.

<sup>57</sup> FSEIR at ii-iii; RTC at 102-103.

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Resources; and Paleontological Resources.<sup>58</sup> However, as set forth in the attached expert reports, the Project will result in new or substantially more severe significant impacts on air quality, transportation, water supply, and biological resources for which the FSEIR omits the requisite impact analysis and fails to require sufficient mitigation measures to reduce the significant impacts in each of these impact areas to less than significant levels.

RTC J-10 also reiterates that “the proposed mix of uses [are] within the same project footprint and the results of the analysis of these proposed changes are not so different from the Pavilion EIR such that they require preparation of a standalone EIR.”<sup>59</sup> As discussed above, these claims are not supported by substantial evidence. For example, none of the environmental impacts assessed in the Pavilion FEIR were analyzed with regards to residential uses, which present a host of new significant impacts that were not analyzed or even considered in the Pavilion FEIR. Residential land uses add “additional noise attenuation considerations,” and can increase the severity of the significant impacts evaluated in the Pavilion FEIR, such as impacts to wildlife and habitats.<sup>60</sup>

RTC J-10 also reasons that “tiering from the prior EIR allows an acknowledgement of the prior activities and impacts associated with the prior ground disturbing activities providing a more comprehensive analysis of the entirety of actions that have occurred on the site.”<sup>61</sup> However, this claim ignores the fact that prior ground disturbing activities on the Project site would likely be described in the environmental setting of a project-level EIR and any impacts associated with these earlier activities were analyzed in the Pavilion FEIR. This Response is also narrowly focused on site preparation and grading as compared to the many other activities and impacts associated with the Ocean KAMP Project that were not adequately analyzed in the FSEIR. Finally, this Response does not consider that an additional 300,000 CY of fill must be imported for this Project, which is a significant amount of additional fill.<sup>62</sup>

Lastly, RTC J-10 claims that the FSEIR’s alternative analysis was reasonable because the analysis focused on reducing the significant noise and

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<sup>58</sup> *Id.* at 5.1-1.

<sup>59</sup> RTC at 102.

<sup>60</sup> DSEIR at 4.2-7; Cashen DSEIR Comments; Cashen FSEIR Comments.

<sup>61</sup> RTC at 102.

<sup>62</sup> FSEIR at 1-2.

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transportation impacts identified in the FSEIR.<sup>63</sup> However, but for the reliance on the incorrect legal framework, a new EIR for the Project would have analyzed a greater number of impacts, required new mitigation measures for the actual Project being considered, and set forth an adequate alternatives analysis that addressed the full scope of the Project's significant impacts. For the foregoing reasons, the City must instead prepare an EIR for this Project.

#### **IV. THE FSEIR FAILS TO CORRECT ERRORS IN ITS IMPROPER BASELINE ANALYSIS FOR TRANSPORTATION IMPACTS**

CEQA defines the environmental setting as the physical environmental conditions in the vicinity of the project, as they exist at the time the notice of preparation is published, from both a local and regional perspective.<sup>64</sup> Courts have established that, “[b]efore the impacts of a project can be assessed and mitigation measures considered, an [environmental review document] must describe the existing environment. It is only against this baseline that any significant environmental effects can be determined.”<sup>65</sup>

CEQA Guidelines makes clear that the baseline must not “include hypothetical conditions, such as those that might be allowed, but have never actually occurred, under existing permits or plans, as the baseline.”<sup>66</sup> Here, the DSEIR concluded that the Project would reduce regional VMT by 917,756 and would therefore result in a less than significant transportation impact for the Project's retail/commercial uses.<sup>67</sup> Our transportation expert commented that the DSEIR's “finding is implausible unless the 2020 Baseline without Project run of the Model included the encoding for a much greater use on the Project site, such as assuming development of the previously proposed The Pavilion at Oceanside Project or the Pavilion at Oceanside Reduced Project Draft Subarea Plan Alternative.”<sup>68</sup> Inclusion of the previously approved, but never constructed, Pavilion project in the baseline impermissibly discounted the Project's actual VMT against VMT for a

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<sup>63</sup> RTC at 103.

<sup>64</sup> 14 C.C.R. §15125(a); *Riverwatch v. County of San Diego* (1999) 76 Cal.App.4th 1428, 1453.

<sup>65</sup> *County of Amador v. El Dorado County Water Agency* (1999) 76 Cal.App.4th 931, 952.

<sup>66</sup> 14 C.C.R. § 15125(1)(3).

<sup>67</sup> DSEIR at 4.5-11.

<sup>68</sup> Smith DSEIR Comments at 2.

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project that was never even built. CEQA does not permit relying on such a baseline to measure impacts.<sup>69</sup>

RTC J-5 and RTC J-14 confirm that the “without project” VMT model includes the Pavilion project, but incorrectly assert that since the former project was certified by the City in 2008 and could be developed at any time, its inclusion in the baseline is permissible.<sup>70</sup> This Response lacks merit. First, given the City’s confirmation in RTC that the baseline against which VMT impacts are calculated does include the never built Pavilion project, our expert reiterates his comments on the DSEIR that the inclusion of the former Pavilion project in the baseline to measure the proposed Project’s VMT impacts is impermissible and improperly skews the Project’s VMT impacts analysis.<sup>71</sup> Second, the City’s Subdivision Ordinance in section 607 establishes clear timelines for the expiration of Tentative Parcel Map and given that the Pavilion project’s approvals are now from over a decade ago, the approvals are likely expired and the RTC’s assertion that the project could be developed at any time are highly suspect.<sup>72</sup>

Finally, RTC J-14’s attempt to distinguish the facts and decision in *Woodward Park* fails.<sup>73</sup> There, the court held that the EIR erroneously used a “hypothetical allowable condition” as the baseline, i.e., 694,000–square–foot office park and retail development that was never built but was the maximum-size development allowable on the project site under existing plan and zoning designations.<sup>74</sup> The proposed project was a smaller, 477,000–square–foot office park and shopping center on a vacant lot, but the EIR for the most part compared the proposed project’s impacts on traffic congestion and air pollution with the larger, hypothetical development rather than with the vacant lot or the “existing physical situation.”<sup>75</sup> The court determined that this caused the EIR to understate the proposed project’s true impacts on traffic congestion and air pollution.<sup>76</sup>

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<sup>69</sup> See *Hollywoodians Encouraging Rental Opportunities (HERO) v. City of Los Angeles et al.* (2019) 37 Cal.App.5th 768 (baseline for CEQA review was vacant building which was no longer part of rental market, rather than building’s prior status as occupied apartment building).

<sup>70</sup> RTC at 92-93; 114-115.

<sup>71</sup> Expert comments by Daniel Smith at 1-2 (July 22, 2022)(“Exhibit B”)(hereinafter “Smith FSEIR Comments”).

<sup>72</sup> See *City of Oceanside, Subdivision Ordinance* at § 607.

<sup>73</sup> *Woodward Park Homeowners Assn., Inc. v. City of Fresno* (2007) 150 Cal. App. 4th 683, as modified on denial of reh’g (May 11, 2007).

<sup>74</sup> *Id.* at 697-698.

<sup>75</sup> *Id.* at 692, 697-698, 707-708.

<sup>76</sup> *Id.* at 708-709.

Accordingly, the court found the use of the larger hypothetical development as the baseline to be misleading.<sup>77</sup>

The *Woodward Park* decision was also cited to by the Supreme Court in *Communities for a Better Environment v. South Coast Air Quality Management District* to support the well-established rule that “the baseline for CEQA analysis must be the ‘existing physical conditions in the affected area’ [internal citation omitted] that is, the “real conditions on the ground” [internal citation omitted] rather than the level of development or activity that *could* or *should* have been present according to a plan or regulation.”<sup>78</sup> There, the California Supreme Court held that the air district erred in using the boilers’ maximum permitted operational levels for NOx emissions as a baseline.<sup>79</sup> The court reasoned that “[b]y treating all operation of the boilers within the individual limits of their permits to be part of the environmental setting, or baseline, the District ensured that no emissions from increased boiler operation would be considered an environmental impact so long as no single boiler operated beyond its permitted capacity.”<sup>80</sup> Moreover, the court focused on the air district’s admission that “operation of the boilers simultaneously at their collective maximum was not the norm.”<sup>81</sup> Similarly here, the City must not compare the proposed Project to what *could* be developed onsite, rather than to what is actually on the site (i.e., a vacant lot). By doing so, the baseline is merely based on hypothetical conditions, which is not permitted by CEQA.

RTC J-14 states that the baseline in *Woodward Park* was the maximum-size development allowable on the project site under existing plan and zoning designations whereas here the City used “a specific project with an approved EIR.”<sup>82</sup> The Response fails to account for the express provisions in CEQA Guidelines, which unambiguously states that the baseline must not “include hypothetical conditions, *such as those that might be allowed, but have never actually occurred, under existing permits or plans*, as the baseline.”<sup>83</sup> This is exactly what the FSEIR incorrectly attempts to do here—rely on a theoretical baseline based on conditions that have not ever occurred, even if previously permitted. Moreover, by overstating the

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<sup>77</sup> *Id.* at 691.

<sup>78</sup> *Communities for a Better Environment v. South Coast Air Quality Management District* (2010) 48 Cal.4th 310, 321.

<sup>79</sup> *Id.* at 322.

<sup>80</sup> *Id.*

<sup>81</sup> *Id.*

<sup>82</sup> RTC at 115.

<sup>83</sup> 14 C.C.R. § 15125(1)(3) (emphasis added).

baseline, the FSEIR severely underestimates the Project's transportation impacts and may also significantly underestimate the Project's air quality impacts.

**V. THE FSEIR FAILS TO RESPOND TO SEVERAL ISSUES RAISED BY SD SEED'S BIOLOGICAL CONSULTANT AND IS THUS DEFICIENT**

The FSEIR improperly omits responses to expert comments on the DSEIR submitted by Mr. Scott Cashen in a letter dated September 30, 2021. The failure to respond to Mr. Cashen's comments on the Project's significant effects to biological resources violate CEQA's requirements. CEQA Guidelines section 15088 requires a lead agency to evaluate and prepare a written response to comments on environmental issues received from persons who reviewed the draft EIR.<sup>84</sup> "There must be good faith, reasoned analysis in response. Conclusory statements unsupported by factual information will not suffice."<sup>85</sup> Moreover, the responses must "describe the disposition of significant environmental issues raised," and "the major environmental issues raised when the Lead Agency's position is at variance with recommendations and objections raised in the comments must be addressed in detail giving reasons why specific comments and suggestions were not accepted."<sup>86</sup>

Here, the RTC omits a direct response to the expert comments submitted by Mr. Scott Cashen on the DSEIR's analysis of impacts to biological resources. For example, Mr. Cashen commented that several of the plants listed in the Applicant's "Conceptual Landscape Palette" are invasive species, including, but not limited to, *Washingtonia robusta*, *Carex pendula*, *Myoporum* sp., *Pittosporum* sp., and *Cynodon dactylon* "Tifgreen."<sup>87</sup> His comments explained that these species are known to invade riparian areas, which would have significant impacts on the ecological functions of the San Luis Rey River corridor.<sup>88</sup> Mr. Cashen stated that the use of invasive plants for the Project's landscaping would violate the Pavilion FEIR's MM BIO-7, which would also apply to the proposed Project.<sup>89</sup> He recommended that a revised landscape palette be prepared to remove invasive species in order to comply with MM BIO-7.<sup>90</sup> Nevertheless, the RTC impermissibly fail to respond to these comments in violation of CEQA. Therefore, the FSEIR fails

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<sup>84</sup> 14 C.C.R. § 15088(a).

<sup>85</sup> *Id.* at § 15088(c).

<sup>86</sup> *Id.*

<sup>87</sup> Cashen DSEIR Comments at 10.

<sup>88</sup> *Id.*

<sup>89</sup> *Id.*

<sup>90</sup> *Id.*

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to fulfill the City's legal duty under CEQA to provide reasoned responses to Mr. Cashen's comments.

**VI. THE FSEIR STILL FAILS TO ADEQUATELY DISCLOSE AND MITIGATE THE PROJECT'S NEW AND MORE SEVERE IMPACTS THAN THOSE ANALYZED IN THE PAVILION FEIR**

The failure to provide information required by CEQA is a failure to proceed in the manner required by CEQA.<sup>91</sup> Challenges to an agency's failure to proceed in the manner required by CEQA, such as the failure to address a subject required to be covered or to disclose information about a project's environmental effects, are subject to a less deferential standard than challenges to an agency's factual conclusions.<sup>92</sup> Even when the substantial evidence standard is applicable, reviewing courts will not "uncritically rely on every study or analysis presented by a project proponent in support of its position. A clearly inadequate or unsupported study is entitled to no judicial deference."<sup>93</sup>

Here, the FSEIR fails to adequately disclose and mitigate the new and more severe impacts related to air quality, transportation/traffic, biological resources, and water supply. As set forth below, the FSEIR, in tandem with the Pavilion FEIR, does not comply with the requirements of CEQA. The City of Oceanside must withdraw the FSEIR and prepare a legally adequate, project-level EIR to address the significant impacts described in this comment letter and the attached expert comments.

**A. The FSEIR Fails to Adequately Respond to Comments Demonstrating That the Project Would Result in Substantially More Severe Significant Transportation Impacts that Remain Unmitigated**

SD SEED previously submitted comments supported by technical expert comments prepared by Mr. Daniel Smith concerning the Project's significant and unmitigated transportation impacts. The RTC fail to meaningfully respond to the significant issues raised in these comments, further confirming that the Project will have more severe significant and unmitigated impacts on transportation. In his

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<sup>91</sup> *Sierra Club v. State Bd. Of Forestry* (1994) 7 Cal.4th 1215, 1236.

<sup>92</sup> *Vineyard Area Citizens for Responsible Growth, Inc. v. City of Rancho Cordova* (2007) 40 Cal.4th 412, 435.

<sup>93</sup> *Berkeley Keep Jets Over the Bay Com.*, 91 Cal.App.4th at 1355.

comments on the FSEIR, Mr. Smith first provides substantial evidence of the Project's inconsistencies with General Plan Policy 3.20, which requires offsite improvements for developments that fail to meet the level of service ("LOS") D threshold. This policy inconsistency is an undisclosed significant transportation impact from exceedance of the City's CEQA thresholds of significance for which the City failed to identify feasible and effective mitigation. Second, Mr. Smith comments that the FSEIR's analysis improperly omits a long-term cumulative transportation impact analysis and should not have relied on the outdated analysis in the Pavilion FEIR. Finally, Mr. Smith comments that the Project's significant residential VMT impacts cannot be mitigated to less than significant levels through implementation of community designs under Land Use /Transportation Measure LUT-9. Thus, impacts from the Project's residential VMT remain significant and unmitigated.

a. The FSEIR Fails to Analyze Conflicts with the Circulation Element of the City's General Plan

The significance criteria used to evaluate the Project's impacts to traffic and circulation are based on Appendix G of the CEQA guidelines.<sup>94</sup> A significant impact related to traffic and circulation would occur if the Project would conflict with a program, plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities.<sup>95</sup> We previously commented that the Project would be inconsistent with Policy 3.20 in the City's General Plan Circulation Element and that the DSEIR improperly failed to disclose and mitigate this inconsistency as a significant impact.<sup>96</sup> Policy 3.20 of the City's General Plan Circulation Element requires necessary off-site improvements "[i]f the location and traffic generation of a proposed development will result in congestion on major streets or failure to meet the LOS D threshold...."<sup>97</sup> In relation to Policy 3.20, the General Plan also states that "[a]ny proposed development project that affects a street segment that already operates, or is projected to operate worse than LOS D, regardless of peak hour analysis, the developer shall propose, prepare and provide mitigation measure(s) for the City to review."<sup>98</sup> Our comments, supported by Mr. Daniel's Smith's comments, on the DSEIR explained that the impacts analysis in the DSEIR failed to disclose and discuss the findings in the Local Transportation

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<sup>94</sup> FSEIR at 4.5-6.

<sup>95</sup> *Id.*

<sup>96</sup> DSEIR 4.5-8—4.5-9.

<sup>97</sup> *Id.* at 4.5-5.

<sup>98</sup> *Id.*

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Study in Appendix D, which identifies nine intersections and two road segments where the Project and cumulative traffic would “contribute to operational deficiencies....”<sup>99</sup>

RTC J-59 responds to these comments by stating a legal argument that “a project need not be in perfect conformity with each and every general plan policy.”<sup>100</sup> However, this is not the legal standard under CEQA. Under CEQA, the City must provide substantial evidence supporting its conclusion that the Project would not result in a significant transportation impact related to traffic and circulation due to the Project “[c]onflict with a program, plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities.”<sup>101</sup> Here, the City provides no such substantial evidence and, in fact, does not even respond to the comment. Even applying the legal standard under the Government Code, the City must ensure that the Project complies with Policy 3.20 of the General Plan. While “[p]erfect conformity is not required,” “a project must be compatible with the objectives and policies of the general plan.”<sup>102</sup> “A project is inconsistent if it conflicts with a general plan policy that is fundamental, mandatory, and clear.”<sup>103</sup> Here, the requirements under Policy 3.20 are clear and mandatory—if the location and traffic generation of a proposed development will result in the failure to meet the LOS D threshold, the development must be required to make necessary off-site improvements. As Mr. Smith explains in his comments in response to the FSEIR, “the Local Transportation Study identified 9 intersections and 2 road segments where the Project would cause significant effects, thereby conflicting with Policy 3.20 in the General Plan. Neither the discussion in Section 4.2, Land Use and Planning, nor Section 4.5, Transportation and Traffic, specifically analyze the findings in the Local Transportation Study and consistency with Policy 3.20. Therefore, the conclusion that the Project would not conflict with a policy addressing the circulation system is not supported by substantial evidence in the FSEIR or Responses.”<sup>104</sup>

RTC J-61 asserts that since the intersections are outside of the City’s jurisdiction, “the comment that the intersections are ‘non-compliant with the City

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<sup>99</sup> DSEIR, Appendix D at i.

<sup>100</sup> RTC at 258.

<sup>101</sup> CEQA Guidelines Appendix G, XVII, (a).

<sup>102</sup> *Endangered Habitats League, Inc. v. Cnty. of Orange* (2005) 131 Cal. App. 4th 777, 782.

<sup>103</sup> *Id.*

<sup>104</sup> Smith FSEIR Comments at 5.

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General Plan' and would therefore incur a significant impact is false."<sup>105</sup> This Response is baseless. The requirements under Policy 3.20 broadly pertain to "major streets or [the] failure to meet the LOS D threshold," which captures the deficient intersections and roadway segments analyzed in the Local Transportation Study.<sup>106</sup> Moreover, the Local Transportation Study explained that the "study area was developed based on the anticipated assignment of Project traffic and locations which will carry the most Project traffic, *per City of Oceanside staff coordination and scoping meetings.*"<sup>107</sup> Thus, the City informed the study area for the Project's Local Transportation Study—not CalTrans or other agency. Finally, the Local Transportation Study identified significant impacts on these roadway areas "[p]er the City of Oceanside's traffic thresholds," and made recommendations for improvements.<sup>108</sup>

For the foregoing reasons, the Project is inconsistent with Policy 3.20 and the FSEIR fails to disclose and mitigate this policy inconsistency as a significant impact for which mitigation must be required.

b. The FSEIR Fails to Disclose and Analyze New and More Severe Long-Term Cumulative Impacts

As detailed in Mr. Smith's comments on the DSEIR, a long-term analysis of cumulative traffic impacts must be included in the analysis to determine conformance with the General Plan's Circulation Element.<sup>109</sup> RTC J-19 and J-62 respond to these comments by dismissing the need for a long-term cumulative analysis for this Project on the grounds that this Project was calculated to generate 13,135 fewer ADT (approximately 41% less) than the site's previously approved Pavilion project.<sup>110</sup> Therefore, the RTC conclude that an analysis of long-term conditions was not warranted.<sup>111</sup>

Mr. Smith determined that RTC J-19 and RTC J-62 are non-responsive to his comments.<sup>112</sup> First, the Responses fail to account for the fact that "14 years have passed since the 2008 approval and about 16 years since the transportation and

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<sup>105</sup> RTC at 259.

<sup>106</sup> *Id.* at 4.5-5.

<sup>107</sup> DSEIR, Appendix D at 14 (emphasis added).

<sup>108</sup> *Id.* at 83.

<sup>109</sup> Smith DSEIR Comments at 5-6.

<sup>110</sup> RTC at 259-260.

<sup>111</sup> *Id.* at 260.

<sup>112</sup> Smith FSEIR Comments at 5-6.

development data relied upon in [the Pavilion project's] analysis was likely acquired, [and] much more is known now about the development that occurred in those intervening years and the development that is likely to occur between now and 2035 than the time when the Pavilion 2035 analysis was performed," thus necessitating an updated analysis.<sup>113</sup> Second, Mr. Smith explains that "regional transportation plans [prior to 2008] assumed much more ambitious highway improvements than are now included by 2035 in the Regional Transportation Plan."<sup>114</sup> Thus, Mr. Smith concludes that these changed conditions necessitate a long-term cumulative transportation analysis, which is improperly omitted from the FSEIR's analysis.<sup>115</sup>

c. The Project's Substantially More Severe Transportation Impacts are Not Mitigated to Less than Significant Levels

The FSEIR states that the Project's VMT per capita for residential uses exceeds the significance threshold of 14.96 VMT per resident and is therefore a significant impact.<sup>116</sup> To mitigate this significant impact, the FSEIR proposes to implement the design guidelines formulated by the California Air Pollution Control Officers Association ("CAPCOA").<sup>117</sup> Based on the theoretical requirements of MM TRA-1, the FSEIR concludes that residential VMT per capita would be reduced by 11.7 percent, which would reduce the Project's residential VMT impact to less than significant levels.<sup>118</sup>

Mr. Smith previously commented that substantial evidence does not demonstrate that MM TRA-1 is capable of mitigating the VMT impacts to less than significant levels.<sup>119</sup> RTC J-20 and RTC J-57 respond to these comments by stating that "[r]esidential VMT is primarily comprised of trips made by residents to and from work, school, and retail/commercial uses," "[t]he calculated reduction in VMT applies only to residents of the project, the majority of whom won't be traveling 'all of the SANDAG region that totals roughly 4,000 square miles' with any regularity," and a "reduction of 11.7% of the project's residential VMT is reasonable in a higher density development where retail/commercial services, and in some cases

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<sup>113</sup> *Id.* at 5.

<sup>114</sup> *Id.*

<sup>115</sup> *Id.* at 6.

<sup>116</sup> FSEIR at 4.5-10.

<sup>117</sup> *Id.* at 4.5-12.

<sup>118</sup> *Id.*

<sup>119</sup> Smith DSEIR Comments at 2-6.

employment opportunities, are located within a walkable distance, as compared to the standard suburban intersection density.”<sup>120</sup>

In response, Mr. Smith states that MM TRA-1 proposes to develop a mere 0.14 square miles consistent with LUT-9 principles—as compared to the 4,000 square mile region that has not uniformly implemented LUT-9 design features—and thus these design features would affect a very small area of mostly internal trips.<sup>121</sup> Moreover, Mr. Smith emphasizes that the FSEIR fails to quantify the number of short trips that fall within the range of influence of the 0.14 square mile area, further demonstrating that the FSEIR’s significance determination is not supported by substantial evidence.<sup>122</sup> Mr. Smith calculated that “[e]ven if the LUT-9 design caused 11.7 percent of the trips to switch from automotive to non-automotive modes and each such shifted trip averaged 0.5 mile..., that would only reduce the Project’s VMT per capita resident to 15.064 VMT. This is still above the regional significant impact threshold of 14.96 VMT per capita resident.”<sup>123</sup>

RTC J-20 also mentions the SANDAG “Higher Density” Development Measure as a justification for the purported reduction in VMT.<sup>124</sup> Mr. Smith, however, explains that this measure is irrelevant and likewise fails to support the claimed VMT reduction from MM TRA-1.<sup>125</sup> As summarized by Mr. Smith, “the SANDAG study evaluates what happens if future broad regional development over the next 20 or 30 years is channeled into higher density forms,” which “is completely different from the situation in the DSEIR and FSEIR which are evaluating what happens if a 0.14 square mile area is developed in isolation in accordance with the principles of LUT-9.”<sup>126</sup> Mr. Smith therefore finds the SANDAG “Higher Density” Development Measure to be inapplicable to the Project and irrelevant to his previous comments.<sup>127</sup> Thus, the FSEIR fails to support the claimed 11.7 percent reduction in average VMT per capita resident resulting from MM TRA-1 on the basis of substantial evidence and the Project’s VMT per capita for residential uses must be disclosed as a significant and unmitigated impact in the FSEIR.

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<sup>120</sup> RTC at 122-124.

<sup>121</sup> Smith FSEIR Comments at 3.

<sup>122</sup> *Id.*

<sup>123</sup> *Id.*

<sup>124</sup> RTC at 123-124.

<sup>125</sup> Smith FSEIR Comments at 4.

<sup>126</sup> *Id.*

<sup>127</sup> *Id.*

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MM TRA-1 is the only mitigation measure set forth in the FSEIR to address the Project's more severe significant transportation impacts. However, as discussed in Mr. Smith's comments on the DSEIR, the DSEIR also sets forth a host of trip reduction strategies as Project features and conditions of approval.<sup>128</sup> According to Mr. Smith, the effectiveness of these features and conditions "are both unquantified and dubious."<sup>129</sup> RTC J-58 dismisses Mr. Smith's comments by stating that these strategies are not mitigation measures and VMT mitigation is provided through MM TRA-1. However, as discussed above and in Mr. Smith's attached expert comments, since the effectiveness of MM TRA-1 is severely overestimated in the FSEIR, the Project's significant residential VMT impacts are not mitigated to less than significant levels and the effectiveness of further purported VMT reduction measures are relevant.<sup>130</sup> Yet, the FSEIR fails to show how these vague and unenforceable trip reduction strategies would reduce the Project's significant impacts on VMT per capita for residential uses to less than significant levels.<sup>131</sup>

For the foregoing reasons, the FSEIR fails to provide substantial evidence to demonstrate a quantitative reduction in VMT per capita for residential uses, and therefore fails to mitigate the Project's more severe significant VMT to less than significant levels.

**B. The FSEIR Fails to Adequately Respond to Comments Concerning the Project's New and More Severe Air Quality Impacts During Construction**

Comments by SD SEED's air quality experts on the DSEIR identified several reductions to the default architectural and area coating emission factors that were unsubstantiated in the DSEIR's Air Quality and Greenhouse Gas Technical Report.<sup>132</sup> Specifically, the architectural and area coating emission factors were each reduced from the default value of 250- to 50-grams per liter ("g/L").<sup>133</sup> The purported justification for these changes was the "50 g/L VOC limit per San Diego Air Pollution Control District ("SDAPCD") rule 67.0.1, effective 1/01/2022."<sup>134</sup> However, SWAPE's comments on the FSEIR explain that these justifications are

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<sup>128</sup> DSEIR at 4.5-12.

<sup>129</sup> Smith DSEIR Comments at 4.

<sup>130</sup> Smith FSEIR Comments at 4.

<sup>131</sup> *Id.*

<sup>132</sup> DSEIR, Appendix I at 61, 102.

<sup>133</sup> *Id.*

<sup>134</sup> *Id.* at 60, 102.

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insufficient and therefore the reductions remain unsubstantiated in the FSEIR's air quality analysis.<sup>135</sup>

RTC J-40 insufficiently responds to SWAPE's comments by stating that the Project must comply with SDAPCD Rule 67.0 and that SWAPE did not provided any evidence that the Project "would use significant quantities of any of the specialty coatings mentioned in the comment, nor has the commenter suggested any other coating that might be reasonably assumed to be used in project construction or operation."<sup>136</sup> As stated in RTC J-40, the City assumed that only the lowest VOC coatings would be used for the entire Project site, i.e., standard interior and exterior house paints with VOC limit of 50 g/L, and these assumptions were based on the *absence of evidence* "[b]ecause the project plans did not include details for the types of coatings to be used for the project."<sup>137</sup>

In response, SWAPE concludes that the FSEIR's assumptions that the Project would only use general flat and/or non-flat coatings are not supported by substantial evidence.<sup>138</sup> SWAPE's comment provides substantial evidence to support why higher VOC emissions limits are applicable to this Project:

"The Project includes 472,850 SF of commercial resort, commercial, and conference facilities, which may require different, and more durable, architectural coatings than typical house paints (FSEIR, p. 5-2). ... the resort will include pools and a surf lagoon (FSEIR, p. 2-15). These commercial features will require coatings. SDAPCD Rule 67.0.1 provides a VOC limit of 340 grams per liter for swimming pool coatings, which substantially exceeds to 50 gram/liter VOC limit assumed in the FSEIR (SDAPCD Rule 67.0.1(d)(iii)). It is unreasonable to assume that the Project's commercial uses like swimming pools would use interior and exterior house paints, and is more reasonable to assume that they would require higher VOC coatings that are specific to their purpose. By failing to discuss and analyze the Project's reasonably foreseeable use of higher VOC coatings, the FSEIR fails to account for the potential inclusion of coatings with higher emissions in the Project's emissions modeling."<sup>139</sup>

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<sup>135</sup> Expert comments by SWAPE at 5 (July 21, 2022)("Exhibit A")(hereinafter "SWAPE FSEIR Comments").

<sup>136</sup> RTC at 153.

<sup>137</sup> *Id.*

<sup>138</sup> SWAPE FSEIR Comments at 3.

<sup>139</sup> *Id.* at 3.

Moreover, the reliance on the lowest value for coating categories “will not result in the most conservative analysis of emissions from all architectural coatings that are authorized for use under SDAPCD Rule 67.0.1.”<sup>140</sup>

Based on the inaccuracies described above and in SWAPE’s attached expert report, it is clear that the FSEIR continues to underestimate the Project’s construction emissions and fails to adequately analyze the Project’s new and more severe significant impacts on air quality. The FSEIR therefore subverts the purpose of CEQA to provide sufficient information to allow for informed decision-making and public participation.<sup>141</sup>

**C. The FSEIR Fails to Adequately Disclose and Mitigate the Project’s Significant Impacts on Biological Resources**

The proposed Project involves numerous revisions to the former Pavilion project that substantially increase the severity of impacts, like edge effects, on sensitive biological resources, as discussed in detail in the attached expert report prepared by Mr. Scott Cashen. These changes include, but are not limited to, a new mixed-use development plan, architectural and design changes, and changes to the proposed uses, e.g., residential, resort, and commercial. Despite these significant changes to the Project, which we previously commented that the DSEIR failed to adequately analyze, the FSEIR instead relied on a conclusory assertion that there would be no new significant impacts on biological resources, and that the mitigation incorporated into the Pavilion FEIR would be sufficient to reduce impacts to less-than-significant levels.<sup>142</sup> Additionally, Mr. Cashen identified deficiencies with the DSEIR’s analysis of impacts to wetlands and night lighting. As discussed below, the RTC fail to meaningfully respond to these comments and the FSEIR still fails to disclose and mitigate the Project’s significant impacts on biological resources.

a. The Project Will Result in New Significant Edge Effects Than Those Previously Analyzed in the Pavilion FEIR Yet These Impacts Remain Undisclosed and Unmitigated in the FSEIR

The Pavilion FEIR concluded that indirect impacts caused by “edge effects” would be potentially significant.<sup>143</sup> We, along with our expert, previously

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<sup>140</sup> *Id.* at 2.

<sup>141</sup> See *Lotus v. Dep’t of Transportation* (2014) 223 Cal. App. 4th 645, 652.

<sup>142</sup> DSEIR at 5.1-8.

<sup>143</sup> Pavilion FEIR at S-13 and -14.

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commented that the DSEIR improperly omitted the requisite discussion of how edge effects would result in new significant impacts for the Project as compared to the prior project.<sup>144</sup> Mr. Cashen's comments on the DSEIR provided substantial evidence to demonstrate that changes to the Project (mainly the new residential uses) would generate new and substantially more severe significant edge effects, and a substantial increase in the severity of the edge effects identified in the Pavilion FEIR.<sup>145</sup>

In response, RTC J-26 claims without evidentiary support that given the existing residential uses in the area, the addition of similar uses "is not expected to substantively contribute to conditions associated with the existing presence of Argentine ants, the brown-headed cowbird, or predation by domestic pets, and no new or more severe impact associated with these issues will occur."<sup>146</sup> Mr. Cashen's comments on the FSEIR provide several reasons why this Response is meritless.<sup>147</sup> First, the reasoning in RTC J-26 is entirely unsupported because according to Mr. Cashen, "there have not been appreciable changes in land uses surrounding the Project site since the City released the Pavilion FEIR in 2008..." such that "if residential uses in the immediate area preclude the potential for the Ocean KAMP Project to cause significant edge effects (e.g., due to Argentine ants or domestic pets), that same rationale would have applied to the Pavilion at Oceanside Project in 2008," which it did not.<sup>148</sup>

Second, Mr. Cashen finds the Response's assumption that "[t]he addition of similar uses in an already urbanized areas is not expected to substantively contribute to conditions associated with the existing presence of Argentine ants, the brown-headed cowbird, or predation by domestic pets," is entirely unsupported.<sup>149</sup> Mr. Cashen explains in his comments that the issue is "(a) whether the Project would increase the abundance of those taxa in the Project area, and (b) how an increase in abundance would affect sensitive biological resources."<sup>150</sup> Mr. Cashen's comments provide substantial evidence that "the Project would create or enhance habitat for all three taxa," which "would increase their abundance," and "there is scientific evidence demonstrating that the severity of adverse effects on native

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<sup>144</sup> Cashen DSEIR Comments at 2; DSEIR at 5.1-1.

<sup>145</sup> *Id.* at 2-12.

<sup>146</sup> RTC at 136.

<sup>147</sup> Cashen FSEIR Comments at 9-12.

<sup>148</sup> *Id.* at 9.

<sup>149</sup> *Id.* at 11.

<sup>150</sup> *Id.*

fauna is correlated with the abundance of free-roaming cats and brown-headed cowbirds.”<sup>151</sup>

Third, indirect impacts on biological resources from the currently proposed Project’s residential uses were not within the scope of impacts analyzed in the Pavilion FEIR, as admitted in the Pavilion FEIR.<sup>152</sup> Mr. Cashen explains that since the current Project will include approximately 36 acres of residential uses (which the Pavilion project did not), this change in use will result in new significant impacts that were not previously analyzed in the Pavilion FEIR.<sup>153</sup> By way of example, Mr. Cashen highlights the proposal to construct approximately 146 dwelling units by the proposed onsite open space, which he comments “may create an ecological trap by attracting sensitive bird species (i.e., the stated purpose of the open space) to an area where they would be highly susceptible to depredation by domestic cats associated with the dwelling units.”<sup>154</sup>

Fourth, Mr. Cashen dismisses the FSEIR’s reliance on MM BIO-7 in the Pavilion FEIR to mitigate indirect impacts associated with invasive species “because the Pavilion FEIR indicated that impacts associated with invasive animals would increase if the Project included residential development,” which this Project does include.<sup>155</sup> Additionally, Mr. Cashen emphasized that since the landscape palette proposed in the FSEIR still includes invasive plants, the effectiveness and feasibility of MM BIO-7 to mitigate significant impacts from invasive species is unsupported.<sup>156</sup> Finally, Mr. Cashen states that RTC J-26 “ignores the fact that even if Argentine ants, domestic pets, and edge effects already occur in the area, the Ocean KAMP Project could contribute to more severe cumulative impacts (than the Pavilion at Oceanside Project) due to the proposed residential development.”<sup>157</sup>

Therefore, based on the evidence presented herein and in Mr. Cashen’s expert report, there is substantial evidence that changes to the Project (e.g., residential development) would generate new significant edge effects, and substantially increase the severity of the edge effects identified in the Pavilion FEIR. These significant impacts remain undisclosed and unmitigated in the FSEIR contrary to CEQA’s requirements.

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<sup>151</sup> *Id.* a 11-12.

<sup>152</sup> *Id.*

<sup>153</sup> *Id.*

<sup>154</sup> *Id.*

<sup>155</sup> *Id.* at 12.

<sup>156</sup> *Id.*

<sup>157</sup> *Id.* at 11.

b. The FSEIR Fails to Disclose and Mitigate the Project's Significant Impacts on Biological Resources from Night Lighting

RTC J-26 and I-10 insufficiently respond to Mr. Cashen's comments on the Project's potentially significant and unmitigated impacts on biological resources from night lighting.<sup>158</sup> RTC I-10 state that the Project would comply with the City's Municipal Code Light Pollution Ordinance.<sup>159</sup> However, Mr. Cashen explains in his comments on the FSEIR that "the City's Light Pollution Ordinance is designed to mitigate astronomical light pollution—not ecological light pollution."<sup>160</sup> Additionally, Mr. Cashen comments that "the City's Light Pollution Ordinance allows very bright lights," and "[s]hielding these lights to minimize the amount of light directed into the sky ... does not prevent significant impacts to organisms that occur at or near ground level, including special-status species associated with the San Luis Rey River corridor."<sup>161</sup> Mr. Cashen therefore concludes that "[t]he FSEIR fails to incorporate mitigation for this potentially significant impact, which is more severe than the impact associated with the Pavilion at Oceanside Project due to significant revisions to the development plan."<sup>162</sup>

c. The FSEIR Fails to Disclose and Mitigate the Project's Potentially Significant Impacts on Wetland Resources

The Pavilion FEIR estimated that the former project would directly impact 0.73 acre of jurisdictional wetlands and wetland habitats.<sup>163</sup> However, the DSEIR estimated that the Project would only impact 0.57 acre of wetlands and wetland habitats.<sup>164</sup> We previously commented that the DSEIR failed to explain or support this discrepancy in the Project's impacts to wetland resources, and as explained in Mr. Cashen's expert report on the DSEIR, "[t]his deficiency impairs the public's ability to understand the Project's impacts on wetland resources and the sufficiency of the mitigation proposed in BIO-2."<sup>165</sup>

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<sup>158</sup> RTC at 57-58; 136.

<sup>159</sup> *Id.* at 57.

<sup>160</sup> Cashen FSEIR Comments at 14.

<sup>161</sup> *Id.*

<sup>162</sup> *Id.* at 14-15.

<sup>163</sup> Pavilion FEIR at S-13; *See also* Helix, *Mitigation Plan for the Pavilion at Oceanside Property* at 2 (November 26, 2007).

<sup>164</sup> DSEIR, p. 5.1-8 (BIO-2).

<sup>165</sup> Cashen DSEIR Comments at 2.

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RTC J-27 responds that the Project's wetlands delineation will be reviewed and confirmed by the resource agencies during future permitting processes, improperly deferring the analysis of the Project's impacts on wetlands to a future time outside of the City's required CEQA review process.<sup>166</sup> Furthermore, the FSEIR admits that while "[t]he entire upland area has been graded and mitigation measures have been implemented pursuant to the Pavilion FEIR," "[w]etland resources are being addressed through the permitting process...."<sup>167</sup> However, as set forth in detail in Mr. Cashen's comments, "the FSEIR fails to disclose that in addition to the upland area, some of the wetland resources at the Project site were graded (sometime between August 2018 and August 2019)."<sup>168</sup> Mr. Cashen "found no evidence that: (a) the Applicant obtained permits from the appropriate regulatory agencies (i.e., ACOE, CDFW, and Regional Water Quality Control Board) prior to eliminating (grading) the wetland resources (as required under MM BIO-13); or that (b) impacts to those wetland resources were mitigated...."<sup>169</sup> Mr. Cashen concludes in his comments that the grading of wetland resources sometime between August 2018 and August 2019 on the Project site is "improperly omitted from the FSEIR's environmental setting and corresponding impacts analysis for biological resources,...."<sup>170</sup>

RTC J-27 also erroneously states "that [t]he most current delineation of aquatic resources represents current site conditions,...."<sup>171</sup> Mr. Cashen concludes that this Response "is not supported by substantial evidence because grading activities of wetland resources clearly has occurred on the site without the requisite mitigation."<sup>172</sup>

Finally, the reasoning set forth in RTC J-27 calls into question the effectiveness of the proposed mitigation for impacts to wetland resources because the FSEIR fails to provide any evidence that impacts would be limited to 0.57 acres of wetlands given that the current wetland delineation has not been reviewed or confirmed by the resource agencies.<sup>173</sup> As Mr. Cashen concludes, "the proposed

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<sup>166</sup> RTC at 139.

<sup>167</sup> FSEIR at 5.1-8.

<sup>168</sup> Cashen FSEIR Comments at 2.

<sup>169</sup> *Id.* at 2-3.

<sup>170</sup> *Id.* at 2.

<sup>171</sup> RTC at 139.

<sup>172</sup> Cashen FSEIR Comments at 3.

<sup>173</sup> *Id.*

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mitigation in the FSEIR is not supported by substantial evidence and may be illusory.”<sup>174</sup>

The FSEIR therefore fails to accurately describe existing biological conditions on the Project site, thereby skewing the impacts analysis of wetland resources.

d. The FSEIR Fails to Provide Substantial Evidence that Impacts to Grassland Resources will be Fully Mitigated

Mr. Cashen shows that the FSEIR’s conclusion that “mitigation measures [for impacts on non-native grassland] have been implemented pursuant to the Pavilion FEIR” is unsupported in two ways.<sup>175</sup> First, Mr. Cashen explains that approximately “5.32 acres of the Project site (5.16 acres of grassland and 0.16 acres of jurisdictional wetlands) that require[] compensatory mitigation pursuant to the Pavilion FEIR are unaccounted for in the FSEIR.”<sup>176</sup> Additionally, Mr. Cashen determined that “the 14.06 acres of grassland habitat acquired by the Applicant does not satisfy the Pavilion FEIR’s requirement for compensatory mitigation at a 0.5:1 ratio (i.e., 20.75 acres).”<sup>177</sup> Thus, the FSEIR’s conclusion regarding the significant impacts and related mitigation for loss of non-native grasslands from the Project is not supported by substantial evidence.

**D. The FSEIR Fails to Adequately Disclose and Mitigate the Project’s New and More Severe Impacts on Water Supply**

The FSEIR’s conclusion that the Project would have sufficient water supplies available to serve the Project and reasonably foreseeable future development during normal, dry, and multiple dry years is unsupported by substantial evidence. First, the FSEIR still fails to analyze the conservation measures, particularly with regards to residential uses, that would purportedly reduce future demand during multiple dry years given that “the City’s total water demand is estimated to *exceed* the total supply by approximately 3% and 7% for the third year of 2035 and 2040, respectively.”<sup>178</sup>

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<sup>174</sup> *Id.*

<sup>175</sup> *Id.*

<sup>176</sup> *Id.* at 8.

<sup>177</sup> *Id.*

<sup>178</sup> DSEIR, Appendix G at 3, 34 (emphasis added).

Second, the FSEIR omits any information about when and how much recycled water is required and available to support the Project needs, and therefore the reliance on recycled water to offset potable water needs is unsupported by any evidence. Finally, the water demand estimations for the Project are uncertain. The RTC are conclusory and non-responsive to these comments, and therefore fail to fulfill the City's legal duty to provide reasoned responses to comments in several ways, as discussed below.

a. The FSEIR Lacks Substantial Evidence to Demonstrate that the Project Would Have Sufficient Water Supplies and Thus the Project's Impacts on Water Supply Must be Disclosed as Significant and Unmitigated

The Water Supply Analysis in Appendix G determined that although there would be sufficient supply to meet the estimated demand over the twenty-year projection during normal years and single dry years, "the City's total water demand is estimated to *exceed* the total supply by approximately 3% and 7% for the third year of 2035 and 2040, respectively," and "...associated water conservation measures [would be needed to achieve projected demand] for multiple-dry years."<sup>179</sup> The conclusion in the Water Supply Analysis is based on expected deficits during multiple dry year conditions anticipated in the City's planning documents.<sup>180</sup>

The relevant threshold of significance is whether "sufficient water supplies [are] available to serve the Project and reasonably foreseeable future development during normal, dry *and multiple dry years*;..."<sup>181</sup> We previously commented on the DSEIR that if achieving adequate supply during multiple dry years is dependent on the implementation of conservation measures, these measures must be identified as formal mitigation measures, quantified, and evaluated in the DSEIR and corresponding Water Supply Analysis to confirm whether the measures are in fact feasible and effective to reduce new and more severe significant impacts. By way of example, the Pavilion FEIR Water Supply Analysis quantified reduced future demands through increased water conservation measures and discussed these measures specifically.<sup>182</sup>

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<sup>179</sup> DSEIR, Appendix G at 3, 34 (emphasis added).

<sup>180</sup> *Id.* at 3.

<sup>181</sup> California Water Code § 10910(c)(3); DSEIR at 4.6-4 (emphasis added).

<sup>182</sup> City of Oceanside, *Final Environmental Impact Report for the Pavilion at Oceanside; Appendix J* at 12 (September 4, 2008).

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RTC J-29 responds by referencing water conservation best management practices set forth in the Pavilion FEIR and claims that the “Project would implement modernized versions of the best management practices as listed in the Project Design Features in the MMRP.”<sup>183</sup> This Response is inaccurate and unsupported by the MMRP since neither of the hydrology and water quality Project Design Features (“PDF”) include the best management practices identified in the Pavilion FEIR or in RTC J-29.<sup>184</sup>

RTC J-29 also responds that “to provide a conservative analysis none of these conservation measures were assumed as part of the project demand in the water supply analysis.”<sup>185</sup> This assertion is non-responsive to our comment, which did not advocate for analyzing the Project’s water demand in tandem with purported conservation measures but rather emphasized the need for these measures to be disclosed and analyzed as mitigation measures during times of insufficient water supply. The FSEIR’s less-than-significant determination for the Project’s impact on water supply is based on unidentified conservation measures to ensure the Project will have sufficient water supplies available for the reasonably foreseeable future, including multiple dry years. However, since none of these conservation measures are disclosed and analyzed in the FSEIR as mitigation measures, the FSEIR’s significance determination is not supported by substantial evidence. Without these measures, the Project’s impacts on water supply are significant and mitigation would be required. The FSEIR must therefore disclose these water conservation measures and analyze whether these measures would reduce the Project’s impacts to less than significant levels on the basis of substantial evidence.

Thus, the FSEIR’s analysis regarding the Project’s new and more significant impacts on water supply is inadequate and the FSEIR lacks substantial evidence to demonstrate that these impacts on water supply would be less than significant.

b. The FSEIR Still Fails to Disclose the Project’s Recycled Water Usage and Any Resulting Significant Impacts

The FSEIR states that “the City can increase supply through the ... continued augmentation of recycled water use in new as well as established parts of the City’s service area, which is anticipated to offset potable demand. Recycled water is anticipated by the City to be available through the Fallbrook outfall line in

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<sup>183</sup> RTC at 141.

<sup>184</sup> FSEIR at 11-14.

<sup>185</sup> *Id.*

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the near future. When available, the proposed Project would convert its irrigation system to access recycled rather than potable water for irrigation supply.”<sup>186</sup> We commented on the DSEIR that the impact analysis improperly omitted any information about when and how much recycled water would be available to support the Project needs. In failing to disclose this information, we commented that the DSEIR’s reliance on recycled water to offset potable water needs was highly suspect and uncertain.

RTC D-2 fails to adequately respond to our comments. The Response explains that “[w]ater demands of all proposed future projects, and all aspects and phases of the project analyzed in the WSA, including its landscaping, and its wave pool, were estimated based on the recommended water unit factors from [] 2015, which conservatively do not take into consideration [] water savings due to implementation of water conservation measures or recycled water conversions.”<sup>187</sup> However, RTC D-2 offers no support for the assumption in the FSEIR’s water supply impacts analysis that the “recycled water use ... is anticipated to offset potable demand.”<sup>188</sup> RTC D-2 is therefore non-responsive to our comments on the DSEIR and we maintain that the Project’s recycled water usage must be evaluated in the FSEIR.

Additional information about the Project’s proposed use of recycled water is required by CEQA here; “...CEQA’s demand for meaningful information ‘is not satisfied by simply stating information will be provided in the future.’”<sup>189</sup> Moreover, the court in *Vineyard Area Citizens for Responsible Growth, Inc.* declared that “CEQA’s informational purposes are not satisfied by an EIR that simply ignores or assumes a solution to the problem of supplying water to a proposed land use project. Decision makers must, under the law, be presented with sufficient facts to ‘evaluate the pros and cons of supplying the amount of water that the [project] will need.’”<sup>190</sup> “[S]peculative sources and unrealistic allocations (‘paper water’) are insufficient bases for decision-making under CEQA. An EIR for a land use project must address the impacts of likely future water sources, and the EIR’s discussion must include a reasoned analysis of the circumstances affecting the likelihood of the water’s availability.”<sup>191</sup>

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<sup>186</sup> FSEIR at 4.6-7.

<sup>187</sup> RTC at 15-16.

<sup>188</sup> FSEIR at 4.6-7.

<sup>189</sup> *Vineyard Area Citizens for Responsible Growth, Inc.*, 40 Cal. 4th at 431.

<sup>190</sup> *Vineyard Area Citizens for Responsible Growth, Inc.*, 40 Cal. 4th at, 430–31.

<sup>191</sup> *Id.* at 432.

It must be noted that the proposed Resolution to approve the Project's entitlements attached to the Staff Report provides additional information about the Project's recycled water infrastructure that should have been included in the FSEIR's analysis. For example, the Resolution states that "[t]he existing 16" recycled water, 18" water main (511), and 20" ground water mains were abandoned and high-lined to allow for mass grading and soil conditioning under previously approved plans (G19-00003) from the original entitlement submittal. The existing mains must all be replaced with new mains and designed to meet current standards. They are to be located along the westerly edge of the residential area to the north of the Ocean Kamp development within existing easements...."<sup>192</sup> This aspect of the proposed Project is improperly omitted from and not analyzed in the FSEIR.

c. The FSEIR's Water Demand Estimations Remain Incomplete and Uncertain

In our comments on the DSEIR, we explained that the water supply analysis only considered projected potable water demand at buildout, but neither the DSEIR nor the Water Supply Analysis clearly defined when full buildout would be achieved for the Project.<sup>193</sup> Moreover, the DSEIR failed to explain whether "buildout" is the maximum amount of water that will be needed for the Project, or if more water will be needed for different stages of the Project. We also commented that the Water Demands Estimation in Table 2.2 in the Water Supply Analysis is deficient because the Table omitted numerous project components and uses, including, multiple pools in addition to the wave pool, water needed for fire protection, water needed for landscaping,<sup>194</sup> water needed for open space areas (if any), and water needed for dust control.<sup>195</sup> RTC D-2 is entirely non-responsive to these comments and we therefore maintain these comments. This information regarding the Project's

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<sup>192</sup> Staff Report, Attachment 2 at 44.

<sup>193</sup> DSEIR, Appendix G at 3.

<sup>194</sup> This Project proposes nearly twice as much landscaping as proposed in the Pavilion FEIR (34% for Ocean KAMP Project as compared to 18% of site for Pavilion Project). The substantial increase in landscaped areas for this Project would likely increase water needs as well, but this information is not disclosed in the DSEIR.

<sup>195</sup> *Id.* at 15. "The Project would incorporate best management practices (BMPs) during construction to reduce emissions of fugitive dust. The San Diego Air Pollution Control District (SDAPCD) Rule 55 – Fugitive Dust Control states that no dust and/or dirt shall leave the property line." DSEIR at 2-19. BMPs include: (1) At least 2 applications of water must be applied during grading between dozer/grader passes (DSEIR 2-20); and (2) All exposed soils shall maintain a min soil moisture of 12% (DSEIR 2-20)

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proposed water use constitutes a critical omission that requires analysis in a new project-level EIR. The City's failure to provide the Project's total proposed water use and the City's failure to analyze the Project's new and more significant impacts to water supplies violates CEQA and the Water Code.

**VII. THE PROJECT'S REQUESTED TENTATIVE MAP MUST BE DENIED BECAUSE THE PROJECT DOES NOT SATISFY THE REQUIRED FINDINGS IN THE SUBDIVISION MAP ACT AND THE CITY'S SUBDIVISION ORDINANCE**

Here, the Project requires a Tentative Map approval, but the FSEIR and other documents in the City's record lack substantial evidence to support the Subdivision Map Act and the City Subdivision Ordinance's required findings to approve the Tentative Map.<sup>196</sup>

The purpose of the Subdivision Map Act is to regulate and control design and improvement of subdivisions with proper consideration for their relation to adjoining areas, to require subdividers to install streets and other improvements, to prevent fraud and exploitation, and to protect both the public and purchasers of subdivided lands.<sup>197</sup> Before approving a tentative map, the Subdivision Map Act requires the agency's legislative body to make findings that the proposed subdivision map, together with the provisions for its design and improvement, is consistent with the general plan and any specific plan.<sup>198</sup> The Subdivision Map Act also requires the agency's legislative body to deny a proposed subdivision map in any of the following circumstances:

- (a) the proposed map is not consistent with applicable general and specific plans as specified in Section 65451.
- (b) the design or improvement of the proposed subdivision is not consistent with applicable general and specific plans.
- (c) the site is not physically suitable for the type of development.
- (d) the site is not physically suitable for the proposed density of development.
- (e) ***the design of the subdivision or the proposed improvements are likely to cause substantial environmental damage or substantially and avoidably injure fish or wildlife or their habitat.***

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<sup>196</sup> Gov Code §§66473.5, 66474; City of Oceanside, Subdivision Ordinance, Article IV, Section 406, available at: <https://www.ci.oceanside.ca.us/civicax/filebank/blobdload.aspx?BlobID=23000>.

<sup>197</sup> *Pratt v. Adams* (1964) 229 Cal.App.2d 602.

<sup>198</sup> Gov Code § 66473.5.

(f) the design of the subdivision or type of improvements is likely to cause serious public health problems.

(g) the design of the subdivision or the type of improvements will conflict with easements, acquired by the public at large, for access through or use of, property within the proposed subdivision. In this connection, the governing body may approve a map if it finds that alternate easements, for access or for use, will be provided, and that these will be substantially equivalent to ones previously acquired by the public. This subsection shall apply only to easements of record or to easements established by judgment of a court of competent jurisdiction and no authority is hereby granted to a legislative body to determine that the public at large has acquired easements for access through or use of property within the proposed subdivision.<sup>199</sup>

As discussed in our comments on the DSEIR, there is substantial evidence demonstrating that the Project is likely to have new and more severe impacts on air quality, biological resources, water supply, and transportation than previously analyzed in the Pavilion FEIR, and which are not adequately mitigated in the FSEIR. As a result of these unmitigated impacts, we commented that the Project fails to comply with mandatory Subdivision Map Act requirements and the City cannot make the requisite findings to approve the Project's Tentative Map.

RTC J-34 responds by stating that the Project's impacts would be reduced to below a level of significance.<sup>200</sup> This Response is not supported by substantial evidence and fails to demonstrate consistency with the findings required by the Subdivision Map Act. As set forth herein and in the attached expert reports, there is substantial evidence demonstrating that the Project is likely to have new and more severe impacts on air quality, transportation, biological resources, and water supply than previously analyzed in the Pavilion FEIR, and which are not adequately mitigated in the FSEIR.

Additionally, pursuant to the City's Subdivision Ordinance, the Planning Commission must make the following finding, in relevant part, to approve or conditionally approve the tentative map: "That the design of the subdivision or the proposed improvements will not cause substantial environmental damage or substantially and avoidable injure fish or wildlife or their habitat."<sup>201</sup> The Staff Report incorrectly asserts that this finding can be made because the Project would

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<sup>199</sup> Gov. Code § 66474 (emphasis added).

<sup>200</sup> RTC at 146.

<sup>201</sup> City of Oceanside, Subdivision Ordinance, Article IV, Section 406(C)(4).

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create “four acres of habitat...to serve as a stepping stone corridor for endangered species.”<sup>202</sup> The preservation of a mere 4 acres of biological open space out of the Project’s 92-acre site is not substantial evidence to support a finding that the Project would not cause substantial environmental damage to species or their habitat. Moreover, the Staff Report’s reasoning ignores the well-supported comments by Mr. Scott Cashen, which conclude on the basis of substantial evidence, that the Project would generate new significant impacts on wildlife and habitat that are not mitigated in the FSEIR, and substantially increase the severity of impacts on biological resources identified in the Pavilion FEIR.<sup>203</sup> For the reasons set forth herein and in the attached expert report by Mr. Cashen, the proposed finding, which is mandated by the City’s Subdivision Ordinance, is unsupported by substantial evidence in the Staff Report and the Planning Commission must not approve the Project’s Tentative Map.

## VII. CONCLUSION

“‘[T]he ultimate decision of whether to approve a project, be that decision right or wrong, is a nullity if based upon an EIR that does not provide the decision-makers, and the public, with the information about the project that is required by CEQA.’ The error is prejudicial ‘if the failure to include relevant information precludes informed decision-making and informed public participation, thereby thwarting the statutory goals of the EIR process.’”<sup>204</sup>

For the reasons set forth herein and in the attached comments by technical experts, the environmental analysis in the FSEIR is inadequate to support the City’s reliance on CEQA Guidelines Section 15163 and not supported by substantial evidence. SD SEED urges the Planning Commission to direct City staff to withdraw the FSEIR and prepare a legally adequate, project-level EIR to address the new and more severe significant impacts and unanalyzed significant impacts described in this comment letter and the attached expert comments. An EIR is necessary to allow the decision-makers and public to ensure that the Project’s significant environmental impacts are mitigated to less than significant levels.

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<sup>202</sup> Staff Report at 10.

<sup>203</sup> See Cashen FSEIR Comments.

<sup>204</sup> *Napa Citizens for Honest Gov’t v. Napa Cty. Bd. of Supervisors* (2001) 91 Cal. App. 4th 342, 355–56, as modified (Aug. 7, 2001), as modified on denial of reh’g (Sept. 4, 2001).

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Thank you for your attention to these comments.

Sincerely,  
*Tara C. Rengifo*  
Tara C. Rengifo  
Associate

Attachments  
TCR:acp

**EXHIBIT A**



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July 21, 2022

Tara C. Rengifo  
Adams Broadwell Joseph & Cardozo  
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**Subject: Comments on the Ocean KAMP Project (SCH No. 2006111033)**

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Dear Ms. Rengifo,

We have reviewed the July 2022 Final Supplemental Environmental Impact Report ("FSEIR") and August 2021 Draft Supplemental Environmental Impact Report ("DSEIR") for the Ocean KAMP Project ("Project") located in the City of Oceanside ("City"). Upon review, we find that the FSEIR is insufficient in addressing our concerns regarding the Project's air quality and health risk impacts. As asserted in our September 29<sup>th</sup>, 2021 comment letter, a revised and recirculated EIR should be prepared to adequately evaluate the Project's potentially significant and unmitigated impacts on the environment.

## **Air Quality**

### **Unsubstantiated Input Parameters Used to Estimate Project Emissions**

In our September 29<sup>th</sup> comment letter, we identified several issues with the DSEIR's air model (California Emissions Estimator Model, "CalEEMod")<sup>1</sup> that artificially reduced the Project's construction and operational emissions. After review of the Responses to Comments ("RTC"), provided as Appendix O to the FSEIR, we found that the FSEIR fails to address all our concerns and maintain that the DSEIR's CalEEMod model is flawed and fails to accurately estimate the Project's criteria air pollutant emissions. As such, we find the DSEIR and RTC to be inadequate and maintain that an updated EIR should be prepared to adequately evaluate the Project's local and regional air quality impacts.

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<sup>1</sup> "CalEEMod Version 2016.3.2." California Air Pollution Control Officers Association (CAPCOA), November 2017, available at: <http://www.aqmd.gov/caleemod/archive/download-version-2016-3-2>.

*Unsubstantiated Reductions to Architectural and Area Coating Emission Factors*

As discussed in our September 29<sup>th</sup> comment letter, the "Ocean KAMP Project" CalEEMod model included several unsubstantiated reductions to the default architectural and area coating emission factors. Review of the RTC demonstrates that the Project again fails to justify or correct this modeling error. As discussed below, we find the FSEIR and RTC to be inadequate and maintain that the less-than-significant air quality impact conclusion is unsubstantiated.

Specifically, regarding the changes to the default architectural and area coating emission factors, the RTC states:

"The comment's first contention is that the Draft SEIR fails to formally require implementation of SDAPCD Rule 67.0. However, that the rule is a regulatory requirement that applies to every project in the County, and also to coatings sold within the County. Therefore, by operation of law, the project must comply with SDAPCD Rule 67.0 such that no change is required to the SEIR.

The comment's second contention is that the author was unable to verify the appropriate emission factor based on Rule 67.0 including a list of 48 different coating categories. The CalEEMod version 2016.3.2 model defaults for architectural coatings in San Diego County are set to the statewide defaults of 250 grams per liter. Statewide defaults are used in the model when no specific limits on VOC content were supplied by the air district to the CalEEMod developers. SDAPCD Rule 67.0.1 became effective February 10, 2021, after development of CalEEMod version 2016.3.2. The statewide model default VOC limits were replaced in the project modeling with site-specific VOC limits for architectural coating established by the SDAPCD. Because the project plans did not include details for the types of coatings to be used for the project, reasonable assumptions were made that the project would use general flat and/or non-flat coatings (e.g., standard interior and exterior house paints), both of which have a maximum VOC limit of 50 grams per liter in accordance with SDAPCD Rule 67.0.1. The commenter has not provided any evidence that the project would use significant quantities of any of the specialty coatings mentioned in the comment, nor has the commenter suggested any other coating that might be reasonably assumed to be used in project construction or operation" (Appendix O, p. 153).

However, this justification is insufficient. As previously discussed in our September 29<sup>th</sup> comment letter, the SDAPCD Rule 67.0.1 VOC Content of Coatings Table provides the required VOC limits (grams of VOC per liter of coating) for 48 different coating categories, which vary from a minimum value of 50 grams-per-liter ("g/L") to a maximum value of 730 g/L.<sup>2</sup> The FSEIR's analysis relies on the lowest value for coating categories, which will not result in the most conservative analysis of emissions from all architectural coatings that are authorized for use under SDAPCD Rule 67.0.1. The RTC has failed to support its determination that the Project would only use general flat and/or non-flat coatings with

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<sup>2</sup> "RULE 67.0.1. ARCHITECTURAL COATINGS." SDAPCD, February 2021, available at: [https://www.sdapcd.org/content/dam/sdc/apcd/PDF/Rules\\_and\\_Regulations/Prohibitions/APCD\\_R67-0-1-2021.pdf](https://www.sdapcd.org/content/dam/sdc/apcd/PDF/Rules_and_Regulations/Prohibitions/APCD_R67-0-1-2021.pdf), p. 13-15, Table 1.

substantial evidence. Rather, the RTC acknowledges that the City's "assumptions" that only the lowest VOC coatings would be used for the entire Project site (standard interior and exterior house paints with VOC limit of 50 grams per liter) were based on the *absence* of evidence "[b]ecause the project plans did not include details for the types of coatings to be used for the project" (Appendix O, p. 153). The FSEIR provides no discussion supporting the basis for this assumption, nor is it reasonable. The Project includes 472,850 SF of commercial resort, commercial, and conference facilities, which may require different, and more durable, architectural coatings than typical house paints (FSEIR, p. 5-2). For example, the resort will include pools and a surf lagoon (FSEIR, p. 2-15). These commercial features will require coatings. SDAPCD Rule 67.0.1 provides a VOC limit of 340 grams per liter for swimming pool coatings, which substantially exceeds to 50 gram/liter VOC limit assumed in the FSEIR (SDAPCD Rule 67.0.1(d)(iii)). It is unreasonable to assume that the Project's commercial uses like swimming pools would use interior and exterior house paints, and is more reasonable to assume that they would require higher VOC coatings that are specific to their purpose. By failing to discuss and analyze the Project's reasonably foreseeable use of higher VOC coatings, the FSEIR fails to account for the potential inclusion of coatings with higher emissions in the Project's emissions modeling. According to the CalEEMod User's Guide:

"CalEEMod was also designed to allow the user to change the defaults to reflect site- or project-specific information, when available, provided that the information is supported by substantial evidence as required by CEQA".<sup>3</sup>

Here, until the FSEIR provides substantial evidence to support which categories of coating would be used during Project construction and operation, the revised emission factors cannot be compared with the SDAPCD Rule 67.0.1 requirements for those categories. Thus, we reiterate our September 29<sup>th</sup> comment that the DSEIR's CalEEMod model is unsubstantiated, and the FSEIR and RTC's less-than-significant air quality impact conclusion should not be relied upon.

## **Disclaimer**

SWAPE has received limited discovery regarding this project. Additional information may become available in the future; thus, we retain the right to revise or amend this report when additional information becomes available. Our professional services have been performed using that degree of care and skill ordinarily exercised, under similar circumstances, by reputable environmental consultants practicing in this or similar localities at the time of service. No other warranty, expressed or implied, is made as to the scope of work, work methodologies and protocols, site conditions, analytical testing results, and findings presented. This report reflects efforts which were limited to information that was reasonably accessible at the time of the work, and may contain informational gaps, inconsistencies, or otherwise be incomplete due to the unavailability or uncertainty of information obtained or provided by third parties.

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<sup>3</sup> "CalEEMod User's Guide." California Air Pollution Control Officers Association (CAPCOA), May 2021, *available at*: <https://www.aqmd.gov/caleemod/user's-guide>, p. 13-14.

Sincerely,



Matt Hagemann, P.G., C.Hg.



Paul E. Rosenfeld, Ph.D.

Attachment A: Matt Hagemann CV

Attachment B: Paul E. Rosenfeld CV



Technical Consultation, Data Analysis and  
Litigation Support for the Environment

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Matt Hagemann, P.G., C.Hg.  
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**Matthew F. Hagemann, P.G., C.Hg., QSD, QSP**

**Geologic and Hydrogeologic Characterization  
Investigation and Remediation Strategies  
Litigation Support and Testifying Expert  
Industrial Stormwater Compliance  
CEQA Review**

**Education:**

M.S. Degree, Geology, California State University Los Angeles, Los Angeles, CA, 1984.

B.A. Degree, Geology, Humboldt State University, Arcata, CA, 1982.

**Professional Certifications:**

California Professional Geologist

California Certified Hydrogeologist

Qualified SWPPP Developer and Practitioner

**Professional Experience:**

Matt has 30 years of experience in environmental policy, contaminant assessment and remediation, stormwater compliance, and CEQA review. He spent nine years with the U.S. EPA in the RCRA and Superfund programs and served as EPA's Senior Science Policy Advisor in the Western Regional Office where he identified emerging threats to groundwater from perchlorate and MTBE. While with EPA, Matt also served as a Senior Hydrogeologist in the oversight of the assessment of seven major military facilities undergoing base closure. He led numerous enforcement actions under provisions of the Resource Conservation and Recovery Act (RCRA) and directed efforts to improve hydrogeologic characterization and water quality monitoring. For the past 15 years, as a founding partner with SWAPE, Matt has developed extensive client relationships and has managed complex projects that include consultation as an expert witness and a regulatory specialist, and a manager of projects ranging from industrial stormwater compliance to CEQA review of impacts from hazardous waste, air quality and greenhouse gas emissions.

Positions Matt has held include:

- Founding Partner, Soil/Water/Air Protection Enterprise (SWAPE) (2003 – present);
- Geology Instructor, Golden West College, 2010 – 2014, 2017;
- Senior Environmental Analyst, Komex H2O Science, Inc. (2000 -- 2003);

- Executive Director, Orange Coast Watch (2001 – 2004);
- Senior Science Policy Advisor and Hydrogeologist, U.S. Environmental Protection Agency (1989–1998);
- Hydrogeologist, National Park Service, Water Resources Division (1998 – 2000);
- Adjunct Faculty Member, San Francisco State University, Department of Geosciences (1993 – 1998);
- Instructor, College of Marin, Department of Science (1990 – 1995);
- Geologist, U.S. Forest Service (1986 – 1998); and
- Geologist, Dames & Moore (1984 – 1986).

**Senior Regulatory and Litigation Support Analyst:**

With SWAPE, Matt’s responsibilities have included:

- Lead analyst and testifying expert in the review of over 300 environmental impact reports and negative declarations since 2003 under CEQA that identify significant issues with regard to hazardous waste, water resources, water quality, air quality, greenhouse gas emissions, and geologic hazards. Make recommendations for additional mitigation measures to lead agencies at the local and county level to include additional characterization of health risks and implementation of protective measures to reduce worker exposure to hazards from toxins and Valley Fever.
- Stormwater analysis, sampling and best management practice evaluation at more than 100 industrial facilities.
- Expert witness on numerous cases including, for example, perfluorooctanoic acid (PFOA) contamination of groundwater, MTBE litigation, air toxins at hazards at a school, CERCLA compliance in assessment and remediation, and industrial stormwater contamination.
- Technical assistance and litigation support for vapor intrusion concerns.
- Lead analyst and testifying expert in the review of environmental issues in license applications for large solar power plants before the California Energy Commission.
- Manager of a project to evaluate numerous formerly used military sites in the western U.S.
- Manager of a comprehensive evaluation of potential sources of perchlorate contamination in Southern California drinking water wells.
- Manager and designated expert for litigation support under provisions of Proposition 65 in the review of releases of gasoline to sources drinking water at major refineries and hundreds of gas stations throughout California.

With Komex H2O Science Inc., Matt’s duties included the following:

- Senior author of a report on the extent of perchlorate contamination that was used in testimony by the former U.S. EPA Administrator and General Counsel.
- Senior researcher in the development of a comprehensive, electronically interactive chronology of MTBE use, research, and regulation.
- Senior researcher in the development of a comprehensive, electronically interactive chronology of perchlorate use, research, and regulation.
- Senior researcher in a study that estimates nationwide costs for MTBE remediation and drinking water treatment, results of which were published in newspapers nationwide and in testimony against provisions of an energy bill that would limit liability for oil companies.
- Research to support litigation to restore drinking water supplies that have been contaminated by MTBE in California and New York.

- Expert witness testimony in a case of oil production-related contamination in Mississippi.
- Lead author for a multi-volume remedial investigation report for an operating school in Los Angeles that met strict regulatory requirements and rigorous deadlines.
- Development of strategic approaches for cleanup of contaminated sites in consultation with clients and regulators.

**Executive Director:**

As Executive Director with Orange Coast Watch, Matt led efforts to restore water quality at Orange County beaches from multiple sources of contamination including urban runoff and the discharge of wastewater. In reporting to a Board of Directors that included representatives from leading Orange County universities and businesses, Matt prepared issue papers in the areas of treatment and disinfection of wastewater and control of the discharge of grease to sewer systems. Matt actively participated in the development of countywide water quality permits for the control of urban runoff and permits for the discharge of wastewater. Matt worked with other nonprofits to protect and restore water quality, including Surfrider, Natural Resources Defense Council and Orange County CoastKeeper as well as with business institutions including the Orange County Business Council.

**Hydrogeology:**

As a Senior Hydrogeologist with the U.S. Environmental Protection Agency, Matt led investigations to characterize and cleanup closing military bases, including Mare Island Naval Shipyard, Hunters Point Naval Shipyard, Treasure Island Naval Station, Alameda Naval Station, Moffett Field, Mather Army Airfield, and Sacramento Army Depot. Specific activities were as follows:

- Led efforts to model groundwater flow and contaminant transport, ensured adequacy of monitoring networks, and assessed cleanup alternatives for contaminated sediment, soil, and groundwater.
- Initiated a regional program for evaluation of groundwater sampling practices and laboratory analysis at military bases.
- Identified emerging issues, wrote technical guidance, and assisted in policy and regulation development through work on four national U.S. EPA workgroups, including the Superfund Groundwater Technical Forum and the Federal Facilities Forum.

At the request of the State of Hawaii, Matt developed a methodology to determine the vulnerability of groundwater to contamination on the islands of Maui and Oahu. He used analytical models and a GIS to show zones of vulnerability, and the results were adopted and published by the State of Hawaii and County of Maui.

As a hydrogeologist with the EPA Groundwater Protection Section, Matt worked with provisions of the Safe Drinking Water Act and NEPA to prevent drinking water contamination. Specific activities included the following:

- Received an EPA Bronze Medal for his contribution to the development of national guidance for the protection of drinking water.
- Managed the Sole Source Aquifer Program and protected the drinking water of two communities through designation under the Safe Drinking Water Act. He prepared geologic reports, conducted

public hearings, and responded to public comments from residents who were very concerned about the impact of designation.

- Reviewed a number of Environmental Impact Statements for planned major developments, including large hazardous and solid waste disposal facilities, mine reclamation, and water transfer.

Matt served as a hydrogeologist with the RCRA Hazardous Waste program. Duties were as follows:

- Supervised the hydrogeologic investigation of hazardous waste sites to determine compliance with Subtitle C requirements.
- Reviewed and wrote "part B" permits for the disposal of hazardous waste.
- Conducted RCRA Corrective Action investigations of waste sites and led inspections that formed the basis for significant enforcement actions that were developed in close coordination with U.S. EPA legal counsel.
- Wrote contract specifications and supervised contractor's investigations of waste sites.

With the National Park Service, Matt directed service-wide investigations of contaminant sources to prevent degradation of water quality, including the following tasks:

- Applied pertinent laws and regulations including CERCLA, RCRA, NEPA, NRDA, and the Clean Water Act to control military, mining, and landfill contaminants.
- Conducted watershed-scale investigations of contaminants at parks, including Yellowstone and Olympic National Park.
- Identified high-levels of perchlorate in soil adjacent to a national park in New Mexico and advised park superintendent on appropriate response actions under CERCLA.
- Served as a Park Service representative on the Interagency Perchlorate Steering Committee, a national workgroup.
- Developed a program to conduct environmental compliance audits of all National Parks while serving on a national workgroup.
- Co-authored two papers on the potential for water contamination from the operation of personal watercraft and snowmobiles, these papers serving as the basis for the development of nation-wide policy on the use of these vehicles in National Parks.
- Contributed to the Federal Multi-Agency Source Water Agreement under the Clean Water Action Plan.

**Policy:**

Served senior management as the Senior Science Policy Advisor with the U.S. Environmental Protection Agency, Region 9.

Activities included the following:

- Advised the Regional Administrator and senior management on emerging issues such as the potential for the gasoline additive MTBE and ammonium perchlorate to contaminate drinking water supplies.
- Shaped EPA's national response to these threats by serving on workgroups and by contributing to guidance, including the Office of Research and Development publication, *Oxygenates in Water: Critical Information and Research Needs*.
- Improved the technical training of EPA's scientific and engineering staff.
- Earned an EPA Bronze Medal for representing the region's 300 scientists and engineers in negotiations with the Administrator and senior management to better integrate scientific

- principles into the policy-making process.
- Established national protocol for the peer review of scientific documents.

### **Geology:**

With the U.S. Forest Service, Matt led investigations to determine hillslope stability of areas proposed for timber harvest in the central Oregon Coast Range. Specific activities were as follows:

- Mapped geology in the field, and used aerial photographic interpretation and mathematical models to determine slope stability.
- Coordinated his research with community members who were concerned with natural resource protection.
- Characterized the geology of an aquifer that serves as the sole source of drinking water for the city of Medford, Oregon.

As a consultant with Dames and Moore, Matt led geologic investigations of two contaminated sites (later listed on the Superfund NPL) in the Portland, Oregon, area and a large hazardous waste site in eastern Oregon. Duties included the following:

- Supervised year-long effort for soil and groundwater sampling.
- Conducted aquifer tests.
- Investigated active faults beneath sites proposed for hazardous waste disposal.

### **Teaching:**

From 1990 to 1998, Matt taught at least one course per semester at the community college and university levels:

- At San Francisco State University, held an adjunct faculty position and taught courses in environmental geology, oceanography (lab and lecture), hydrogeology, and groundwater contamination.
- Served as a committee member for graduate and undergraduate students.
- Taught courses in environmental geology and oceanography at the College of Marin.

Matt is currently a part time geology instructor at Golden West College in Huntington Beach, California where he taught from 2010 to 2014 and in 2017.

### **Invited Testimony, Reports, Papers and Presentations:**

**Hagemann, M.F., 2008.** Disclosure of Hazardous Waste Issues under CEQA. Presentation to the Public Environmental Law Conference, Eugene, Oregon.

**Hagemann, M.F., 2008.** Disclosure of Hazardous Waste Issues under CEQA. Invited presentation to U.S. EPA Region 9, San Francisco, California.

**Hagemann, M.F., 2005.** Use of Electronic Databases in Environmental Regulation, Policy Making and Public Participation. Brownfields 2005, Denver, Colorado.

**Hagemann, M.F., 2004.** Perchlorate Contamination of the Colorado River and Impacts to Drinking Water in Nevada and the Southwestern U.S. Presentation to a meeting of the American Groundwater Trust, Las Vegas, NV (served on conference organizing committee).

- Hagemann, M.F., 2004.** Invited testimony to a California Senate committee hearing on air toxins at schools in Southern California, Los Angeles.
- Brown, A., Farrow, J., Gray, A. and Hagemann, M., 2004.** An Estimate of Costs to Address MTBE Releases from Underground Storage Tanks and the Resulting Impact to Drinking Water Wells. Presentation to the Ground Water and Environmental Law Conference, National Groundwater Association.
- Hagemann, M.F., 2004.** Perchlorate Contamination of the Colorado River and Impacts to Drinking Water in Arizona and the Southwestern U.S. Presentation to a meeting of the American Groundwater Trust, Phoenix, AZ (served on conference organizing committee).
- Hagemann, M.F., 2003.** Perchlorate Contamination of the Colorado River and Impacts to Drinking Water in the Southwestern U.S. Invited presentation to a special committee meeting of the National Academy of Sciences, Irvine, CA.
- Hagemann, M.F., 2003.** Perchlorate Contamination of the Colorado River. Invited presentation to a tribal EPA meeting, Pechanga, CA.
- Hagemann, M.F., 2003.** Perchlorate Contamination of the Colorado River. Invited presentation to a meeting of tribal representatives, Parker, AZ.
- Hagemann, M.F., 2003.** Impact of Perchlorate on the Colorado River and Associated Drinking Water Supplies. Invited presentation to the Inter-Tribal Meeting, Torres Martinez Tribe.
- Hagemann, M.F., 2003.** The Emergence of Perchlorate as a Widespread Drinking Water Contaminant. Invited presentation to the U.S. EPA Region 9.
- Hagemann, M.F., 2003.** A Deductive Approach to the Assessment of Perchlorate Contamination. Invited presentation to the California Assembly Natural Resources Committee.
- Hagemann, M.F., 2003.** Perchlorate: A Cold War Legacy in Drinking Water. Presentation to a meeting of the National Groundwater Association.
- Hagemann, M.F., 2002.** From Tank to Tap: A Chronology of MTBE in Groundwater. Presentation to a meeting of the National Groundwater Association.
- Hagemann, M.F., 2002.** A Chronology of MTBE in Groundwater and an Estimate of Costs to Address Impacts to Groundwater. Presentation to the annual meeting of the Society of Environmental Journalists.
- Hagemann, M.F., 2002.** An Estimate of the Cost to Address MTBE Contamination in Groundwater (and Who Will Pay). Presentation to a meeting of the National Groundwater Association.
- Hagemann, M.F., 2002.** An Estimate of Costs to Address MTBE Releases from Underground Storage Tanks and the Resulting Impact to Drinking Water Wells. Presentation to a meeting of the U.S. EPA and State Underground Storage Tank Program managers.

**Hagemann, M.F., 2001.** From Tank to Tap: A Chronology of MTBE in Groundwater. Unpublished report.

**Hagemann, M.F., 2001.** Estimated Cleanup Cost for MTBE in Groundwater Used as Drinking Water. Unpublished report.

**Hagemann, M.F., 2001.** Estimated Costs to Address MTBE Releases from Leaking Underground Storage Tanks. Unpublished report.

**Hagemann, M.F., and VanMouwerik, M., 1999.** Potential Water Quality Concerns Related to Snowmobile Usage. Water Resources Division, National Park Service, Technical Report.

**VanMouwerik, M. and Hagemann, M.F. 1999,** Water Quality Concerns Related to Personal Watercraft Usage. Water Resources Division, National Park Service, Technical Report.

**Hagemann, M.F., 1999,** Is Dilution the Solution to Pollution in National Parks? The George Wright Society Biannual Meeting, Asheville, North Carolina.

**Hagemann, M.F., 1997,** The Potential for MTBE to Contaminate Groundwater. U.S. EPA Superfund Groundwater Technical Forum Annual Meeting, Las Vegas, Nevada.

**Hagemann, M.F., and Gill, M., 1996,** Impediments to Intrinsic Remediation, Moffett Field Naval Air Station, Conference on Intrinsic Remediation of Chlorinated Hydrocarbons, Salt Lake City.

**Hagemann, M.F., Fukunaga, G.L., 1996,** The Vulnerability of Groundwater to Anthropogenic Contaminants on the Island of Maui, Hawaii. Hawaii Water Works Association Annual Meeting, Maui, October 1996.

**Hagemann, M. F., Fukunaga, G. L., 1996,** Ranking Groundwater Vulnerability in Central Oahu, Hawaii. Proceedings, Geographic Information Systems in Environmental Resources Management, Air and Waste Management Association Publication VIP-61.

**Hagemann, M.F., 1994.** Groundwater Characterization and Cleanup at Closing Military Bases in California. Proceedings, California Groundwater Resources Association Meeting.

**Hagemann, M.F. and Sabol, M.A., 1993.** Role of the U.S. EPA in the High Plains States Groundwater Recharge Demonstration Program. Proceedings, Sixth Biennial Symposium on the Artificial Recharge of Groundwater.

**Hagemann, M.F., 1993.** U.S. EPA Policy on the Technical Impracticability of the Cleanup of DNAPL-contaminated Groundwater. California Groundwater Resources Association Meeting.

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**Hagemann, M.F., 1992. Dense Nonaqueous Phase Liquid Contamination of Groundwater: An Ounce of Prevention... Proceedings, Association of Engineering Geologists Annual Meeting, v. 35.**

**Other Experience:**

Selected as subject matter expert for the California Professional Geologist licensing examinations, 2009-2011.

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Litigation Support for the Environment**SOIL WATER AIR PROTECTION ENTERPRISE**2656 29th Street, Suite 201  
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Mobil: (310) 795-2335  
Office: (310) 452-5555  
Fax: (310) 452-5550  
Email: [prosenfeld@swape.com](mailto:prosenfeld@swape.com)***Paul Rosenfeld, Ph.D.****Principal Environmental Chemist***Chemical Fate and Transport & Air Dispersion Modeling****Risk Assessment & Remediation Specialist****Education**

Ph.D. Soil Chemistry, University of Washington, 1999. Dissertation on volatile organic compound filtration.

M.S. Environmental Science, U.C. Berkeley, 1995. Thesis on organic waste economics.

B.A. Environmental Studies, U.C. Santa Barbara, 1991. Thesis on wastewater treatment.

**Professional Experience**

Dr. Rosenfeld has over 25 years' experience conducting environmental investigations and risk assessments for evaluating impacts to human health, property, and ecological receptors. His expertise focuses on the fate and transport of environmental contaminants, human health risk, exposure assessment, and ecological restoration. Dr. Rosenfeld has evaluated and modeled emissions from oil spills, landfills, boilers and incinerators, process stacks, storage tanks, confined animal feeding operations, industrial, military and agricultural sources, unconventional oil drilling operations, and locomotive and construction engines. His project experience ranges from monitoring and modeling of pollution sources to evaluating impacts of pollution on workers at industrial facilities and residents in surrounding communities. Dr. Rosenfeld has also successfully modeled exposure to contaminants distributed by water systems and via vapor intrusion.

Dr. Rosenfeld has investigated and designed remediation programs and risk assessments for contaminated sites containing lead, heavy metals, mold, bacteria, particulate matter, petroleum hydrocarbons, chlorinated solvents, pesticides, radioactive waste, dioxins and furans, semi- and volatile organic compounds, PCBs, PAHs, creosote, perchlorate, asbestos, per- and poly-fluoroalkyl substances (PFOA/PFOS), unusual polymers, fuel oxygenates (MTBE), among other pollutants. Dr. Rosenfeld also has experience evaluating greenhouse gas emissions from various projects and is an expert on the assessment of odors from industrial and agricultural sites, as well as the evaluation of odor nuisance impacts and technologies for abatement of odorous emissions. As a principal scientist at SWAPE, Dr. Rosenfeld directs air dispersion modeling and exposure assessments. He has served as an expert witness and testified about pollution sources causing nuisance and/or personal injury at sites and has testified as an expert witness on numerous cases involving exposure to soil, water and air contaminants from industrial, railroad, agricultural, and military sources.

## **Professional History:**

Soil Water Air Protection Enterprise (SWAPE); 2003 to present; Principal and Founding Partner  
UCLA School of Public Health; 2007 to 2011; Lecturer (Assistant Researcher)  
UCLA School of Public Health; 2003 to 2006; Adjunct Professor  
UCLA Environmental Science and Engineering Program; 2002-2004; Doctoral Intern Coordinator  
UCLA Institute of the Environment, 2001-2002; Research Associate  
Komex H<sub>2</sub>O Science, 2001 to 2003; Senior Remediation Scientist  
National Groundwater Association, 2002-2004; Lecturer  
San Diego State University, 1999-2001; Adjunct Professor  
Anteon Corp., San Diego, 2000-2001; Remediation Project Manager  
Ogden (now Amec), San Diego, 2000-2000; Remediation Project Manager  
Bechtel, San Diego, California, 1999 – 2000; Risk Assessor  
King County, Seattle, 1996 – 1999; Scientist  
James River Corp., Washington, 1995-96; Scientist  
Big Creek Lumber, Davenport, California, 1995; Scientist  
Plumas Corp., California and USFS, Tahoe 1993-1995; Scientist  
Peace Corps and World Wildlife Fund, St. Kitts, West Indies, 1991-1993; Scientist

## **Publications:**

- Remy, L.L., Clay T., Byers, V., **Rosenfeld P. E.** (2019) Hospital, Health, and Community Burden After Oil Refinery Fires, Richmond, California 2007 and 2012. *Environmental Health*. 18:48
- Simons, R.A., Seo, Y. **Rosenfeld, P.**, (2015) Modeling the Effect of Refinery Emission On Residential Property Value. *Journal of Real Estate Research*. 27(3):321-342
- Chen, J. A, Zapata A. R., Sutherland A. J., Molmen, D.R., Chow, B. S., Wu, L. E., **Rosenfeld, P. E.**, Hesse, R. C., (2012) Sulfur Dioxide and Volatile Organic Compound Exposure To A Community In Texas City Texas Evaluated Using Aermod and Empirical Data. *American Journal of Environmental Science*, 8(6), 622-632.
- Rosenfeld, P.E.** & Feng, L. (2011). *The Risks of Hazardous Waste*. Amsterdam: Elsevier Publishing.
- Cheremisinoff, N.P., & **Rosenfeld, P.E.** (2011). *Handbook of Pollution Prevention and Cleaner Production: Best Practices in the Agrochemical Industry*, Amsterdam: Elsevier Publishing.
- Gonzalez, J., Feng, L., Sutherland, A., Waller, C., Sok, H., Hesse, R., **Rosenfeld, P.** (2010). PCBs and Dioxins/Furans in Attic Dust Collected Near Former PCB Production and Secondary Copper Facilities in Sauget, IL. *Procedia Environmental Sciences*. 113–125.
- Feng, L., Wu, C., Tam, L., Sutherland, A.J., Clark, J.J., **Rosenfeld, P.E.** (2010). Dioxin and Furan Blood Lipid and Attic Dust Concentrations in Populations Living Near Four Wood Treatment Facilities in the United States. *Journal of Environmental Health*. 73(6), 34-46.
- Cheremisinoff, N.P., & **Rosenfeld, P.E.** (2010). *Handbook of Pollution Prevention and Cleaner Production: Best Practices in the Wood and Paper Industries*. Amsterdam: Elsevier Publishing.
- Cheremisinoff, N.P., & **Rosenfeld, P.E.** (2009). *Handbook of Pollution Prevention and Cleaner Production: Best Practices in the Petroleum Industry*. Amsterdam: Elsevier Publishing.
- Wu, C., Tam, L., Clark, J., **Rosenfeld, P.** (2009). Dioxin and furan blood lipid concentrations in populations living near four wood treatment facilities in the United States. *WIT Transactions on Ecology and the Environment, Air Pollution*. 123 (17). 319-327.

Tam L. K., Wu C. D., Clark J. J. and **Rosenfeld, P.E.** (2008). A Statistical Analysis Of Attic Dust And Blood Lipid Concentrations Of Tetrachloro-p-Dibenzodioxin (TCDD) Toxicity Equivalency Quotients (TEQ) In Two Populations Near Wood Treatment Facilities. *Organohalogen Compounds*, 70, 002252-002255.

Tam L. K., Wu C. D., Clark J. J. and **Rosenfeld, P.E.** (2008). Methods For Collect Samples For Assessing Dioxins And Other Environmental Contaminants In Attic Dust: A Review. *Organohalogen Compounds*, 70, 000527-000530.

Hensley, A.R. A. Scott, J. J. J. Clark, **Rosenfeld, P.E.** (2007). Attic Dust and Human Blood Samples Collected near a Former Wood Treatment Facility. *Environmental Research*. 105, 194-197.

**Rosenfeld, P.E.**, J. J. J. Clark, A. R. Hensley, M. Suffet. (2007). The Use of an Odor Wheel Classification for Evaluation of Human Health Risk Criteria for Compost Facilities. *Water Science & Technology* 55(5), 345-357.

**Rosenfeld, P. E.**, M. Suffet. (2007). The Anatomy Of Odour Wheels For Odours Of Drinking Water, Wastewater, Compost And The Urban Environment. *Water Science & Technology* 55(5), 335-344.

Sullivan, P. J. Clark, J.J.J., Agardy, F. J., **Rosenfeld, P.E.** (2007). *Toxic Legacy, Synthetic Toxins in the Food, Water, and Air in American Cities*. Boston Massachusetts: Elsevier Publishing

**Rosenfeld, P.E.**, and Suffet I.H. (2004). Control of Compost Odor Using High Carbon Wood Ash. *Water Science and Technology*. 49(9),171-178.

**Rosenfeld P. E.**, J.J. Clark, I.H. (Mel) Suffet (2004). The Value of An Odor-Quality-Wheel Classification Scheme For The Urban Environment. *Water Environment Federation's Technical Exhibition and Conference (WEFTEC) 2004*. New Orleans, October 2-6, 2004.

**Rosenfeld, P.E.**, and Suffet, I.H. (2004). Understanding Odorants Associated With Compost, Biomass Facilities, and the Land Application of Biosolids. *Water Science and Technology*. 49(9), 193-199.

**Rosenfeld, P.E.**, and Suffet I.H. (2004). Control of Compost Odor Using High Carbon Wood Ash, *Water Science and Technology*, 49( 9), 171-178.

**Rosenfeld, P. E.**, Grey, M. A., Sellow, P. (2004). Measurement of Biosolids Odor and Odorant Emissions from Windrows, Static Pile and Biofilter. *Water Environment Research*. 76(4), 310-315.

**Rosenfeld, P.E.**, Grey, M and Suffet, M. (2002). Compost Demonstration Project, Sacramento California Using High-Carbon Wood Ash to Control Odor at a Green Materials Composting Facility. *Integrated Waste Management Board Public Affairs Office, Publications Clearinghouse (MS-6)*, Sacramento, CA Publication #442-02-008.

**Rosenfeld, P.E.**, and C.L. Henry. (2001). Characterization of odor emissions from three different biosolids. *Water Soil and Air Pollution*. 127(1-4), 173-191.

**Rosenfeld, P.E.**, and Henry C. L., (2000). Wood ash control of odor emissions from biosolids application. *Journal of Environmental Quality*. 29, 1662-1668.

**Rosenfeld, P.E.**, C.L. Henry and D. Bennett. (2001). Wastewater dewatering polymer affect on biosolids odor emissions and microbial activity. *Water Environment Research*. 73(4), 363-367.

**Rosenfeld, P.E.**, and C.L. Henry. (2001). Activated Carbon and Wood Ash Sorption of Wastewater, Compost, and Biosolids Odorants. *Water Environment Research*, 73, 388-393.

**Rosenfeld, P.E.**, and Henry C. L., (2001). High carbon wood ash effect on biosolids microbial activity and odor. *Water Environment Research*. 131(1-4), 247-262.

Chollack, T. and P. Rosenfeld. (1998). Compost Amendment Handbook For Landscaping. Prepared for and distributed by the City of Redmond, Washington State.

Rosenfeld, P. E. (1992). The Mount Liamuiga Crater Trail. *Heritage Magazine of St. Kitts*, 3(2).

Rosenfeld, P. E. (1993). High School Biogas Project to Prevent Deforestation On St. Kitts. *Biomass Users Network*, 7(1).

Rosenfeld, P. E. (1998). Characterization, Quantification, and Control of Odor Emissions From Biosolids Application To Forest Soil. Doctoral Thesis. University of Washington College of Forest Resources.

Rosenfeld, P. E. (1994). Potential Utilization of Small Diameter Trees on Sierra County Public Land. Masters thesis reprinted by the Sierra County Economic Council. Sierra County, California.

Rosenfeld, P. E. (1991). How to Build a Small Rural Anaerobic Digester & Uses Of Biogas In The First And Third World. Bachelors Thesis. University of California.

### Presentations:

Rosenfeld, P.E., "The science for Perfluorinated Chemicals (PFAS): What makes remediation so hard?" Law Seminars International, (May 9-10, 2018) 800 Fifth Avenue, Suite 101 Seattle, WA.

Rosenfeld, P.E., Sutherland, A; Hesse, R.; Zapata, A. (October 3-6, 2013). Air dispersion modeling of volatile organic emissions from multiple natural gas wells in Decatur, TX. *44th Western Regional Meeting, American Chemical Society*. Lecture conducted from Santa Clara, CA.

Sok, H.L.; Waller, C.C.; Feng, L.; Gonzalez, J.; Sutherland, A.J.; Wisdom-Stack, T.; Sahai, R.K.; Hesse, R.C.; Rosenfeld, P.E. (June 20-23, 2010). Atrazine: A Persistent Pesticide in Urban Drinking Water. *Urban Environmental Pollution*. Lecture conducted from Boston, MA.

Feng, L.; Gonzalez, J.; Sok, H.L.; Sutherland, A.J.; Waller, C.C.; Wisdom-Stack, T.; Sahai, R.K.; La, M.; Hesse, R.C.; Rosenfeld, P.E. (June 20-23, 2010). Bringing Environmental Justice to East St. Louis, Illinois. *Urban Environmental Pollution*. Lecture conducted from Boston, MA.

Rosenfeld, P.E. (April 19-23, 2009). Perfluorooctanoic Acid (PFOA) and Perfluorooctane Sulfonate (PFOS) Contamination in Drinking Water From the Use of Aqueous Film Forming Foams (AFFF) at Airports in the United States. *2009 Ground Water Summit and 2009 Ground Water Protection Council Spring Meeting*, Lecture conducted from Tuscon, AZ.

Rosenfeld, P.E. (April 19-23, 2009). Cost to Filter Atrazine Contamination from Drinking Water in the United States" Contamination in Drinking Water From the Use of Aqueous Film Forming Foams (AFFF) at Airports in the United States. *2009 Ground Water Summit and 2009 Ground Water Protection Council Spring Meeting*. Lecture conducted from Tuscon, AZ.

Wu, C., Tam, L., Clark, J., Rosenfeld, P. (20-22 July, 2009). Dioxin and furan blood lipid concentrations in populations living near four wood treatment facilities in the United States. Brebbia, C.A. and Popov, V., eds., *Air Pollution XVII: Proceedings of the Seventeenth International Conference on Modeling, Monitoring and Management of Air Pollution*. Lecture conducted from Tallinn, Estonia.

Rosenfeld, P. E. (October 15-18, 2007). Moss Point Community Exposure To Contaminants From A Releasing Facility. *The 23<sup>rd</sup> Annual International Conferences on Soils Sediment and Water*. Platform lecture conducted from University of Massachusetts, Amherst MA.

Rosenfeld, P. E. (October 15-18, 2007). The Repeated Trespass of Tritium-Contaminated Water Into A Surrounding Community Form Repeated Waste Spills From A Nuclear Power Plant. *The 23<sup>rd</sup> Annual International*

*Conferences on Soils Sediment and Water*. Platform lecture conducted from University of Massachusetts, Amherst MA.

**Rosenfeld, P. E.** (October 15-18, 2007). Somerville Community Exposure To Contaminants From Wood Treatment Facility Emissions. The 23<sup>rd</sup> *Annual International Conferences on Soils Sediment and Water*. Lecture conducted from University of Massachusetts, Amherst MA.

**Rosenfeld P. E.** (March 2007). Production, Chemical Properties, Toxicology, & Treatment Case Studies of 1,2,3-Trichloropropane (TCP). *The Association for Environmental Health and Sciences (AEHS) Annual Meeting*. Lecture conducted from San Diego, CA.

**Rosenfeld P. E.** (March 2007). Blood and Attic Sampling for Dioxin/Furan, PAH, and Metal Exposure in Florida, Alabama. *The AEHS Annual Meeting*. Lecture conducted from San Diego, CA.

Hensley A.R., Scott, A., **Rosenfeld P.E.**, Clark, J.J.J. (August 21 – 25, 2006). Dioxin Containing Attic Dust And Human Blood Samples Collected Near A Former Wood Treatment Facility. *The 26th International Symposium on Halogenated Persistent Organic Pollutants – DIOXIN2006*. Lecture conducted from Radisson SAS Scandinavia Hotel in Oslo Norway.

Hensley A.R., Scott, A., **Rosenfeld P.E.**, Clark, J.J.J. (November 4-8, 2006). Dioxin Containing Attic Dust And Human Blood Samples Collected Near A Former Wood Treatment Facility. *APHA 134 Annual Meeting & Exposition*. Lecture conducted from Boston Massachusetts.

**Paul Rosenfeld Ph.D.** (October 24-25, 2005). Fate, Transport and Persistence of PFOA and Related Chemicals. Mealey's C8/PFOA. *Science, Risk & Litigation Conference* Lecture conducted from The Rittenhouse Hotel, Philadelphia, PA.

**Paul Rosenfeld Ph.D.** (September 19, 2005). Brominated Flame Retardants in Groundwater: Pathways to Human Ingestion, Toxicology and Remediation *PEMA Emerging Contaminant Conference*. Lecture conducted from Hilton Hotel, Irvine California.

**Paul Rosenfeld Ph.D.** (September 19, 2005). Fate, Transport, Toxicity, And Persistence of 1,2,3-TCP. *PEMA Emerging Contaminant Conference*. Lecture conducted from Hilton Hotel in Irvine, California.

**Paul Rosenfeld Ph.D.** (September 26-27, 2005). Fate, Transport and Persistence of PDBEs. *Mealey's Groundwater Conference*. Lecture conducted from Ritz Carlton Hotel, Marina Del Ray, California.

**Paul Rosenfeld Ph.D.** (June 7-8, 2005). Fate, Transport and Persistence of PFOA and Related Chemicals. *International Society of Environmental Forensics: Focus On Emerging Contaminants*. Lecture conducted from Sheraton Oceanfront Hotel, Virginia Beach, Virginia.

**Paul Rosenfeld Ph.D.** (July 21-22, 2005). Fate Transport, Persistence and Toxicology of PFOA and Related Perfluorochemicals. *2005 National Groundwater Association Ground Water And Environmental Law Conference*. Lecture conducted from Wyndham Baltimore Inner Harbor, Baltimore Maryland.

**Paul Rosenfeld Ph.D.** (July 21-22, 2005). Brominated Flame Retardants in Groundwater: Pathways to Human Ingestion, Toxicology and Remediation. *2005 National Groundwater Association Ground Water and Environmental Law Conference*. Lecture conducted from Wyndham Baltimore Inner Harbor, Baltimore Maryland.

**Paul Rosenfeld, Ph.D.** and James Clark Ph.D. and Rob Hesse R.G. (May 5-6, 2004). Tert-butyl Alcohol Liability and Toxicology, A National Problem and Unquantified Liability. *National Groundwater Association. Environmental Law Conference*. Lecture conducted from Congress Plaza Hotel, Chicago Illinois.

**Paul Rosenfeld, Ph.D.** (March 2004). Perchlorate Toxicology. *Meeting of the American Groundwater Trust*. Lecture conducted from Phoenix Arizona.

- Hagemann, M.F., Paul Rosenfeld, Ph.D. and Rob Hesse (2004). Perchlorate Contamination of the Colorado River. *Meeting of tribal representatives*. Lecture conducted from Parker, AZ.
- Paul Rosenfeld, Ph.D. (April 7, 2004). A National Damage Assessment Model For PCE and Dry Cleaners. *Drycleaner Symposium. California Ground Water Association*. Lecture conducted from Radison Hotel, Sacramento, California.
- Rosenfeld, P. E., Grey, M., (June 2003) Two stage biofilter for biosolids composting odor control. *Seventh International In Situ And On Site Bioremediation Symposium Battelle Conference* Orlando, FL.
- Paul Rosenfeld, Ph.D. and James Clark Ph.D. (February 20-21, 2003) Understanding Historical Use, Chemical Properties, Toxicity and Regulatory Guidance of 1,4 Dioxane. *National Groundwater Association. Southwest Focus Conference. Water Supply and Emerging Contaminants..* Lecture conducted from Hyatt Regency Phoenix Arizona.
- Paul Rosenfeld, Ph.D. (February 6-7, 2003). Underground Storage Tank Litigation and Remediation. *California CUPA Forum*. Lecture conducted from Marriott Hotel, Anaheim California.
- Paul Rosenfeld, Ph.D. (October 23, 2002) Underground Storage Tank Litigation and Remediation. *EPA Underground Storage Tank Roundtable*. Lecture conducted from Sacramento California.
- Rosenfeld, P.E. and Suffet, M. (October 7- 10, 2002). Understanding Odor from Compost, *Wastewater and Industrial Processes. Sixth Annual Symposium On Off Flavors in the Aquatic Environment. International Water Association*. Lecture conducted from Barcelona Spain.
- Rosenfeld, P.E. and Suffet, M. (October 7- 10, 2002). Using High Carbon Wood Ash to Control Compost Odor. *Sixth Annual Symposium On Off Flavors in the Aquatic Environment. International Water Association*. Lecture conducted from Barcelona Spain.
- Rosenfeld, P.E. and Grey, M. A. (September 22-24, 2002). Biocycle Composting For Coastal Sage Restoration. *Northwest Biosolids Management Association*. Lecture conducted from Vancouver Washington..
- Rosenfeld, P.E. and Grey, M. A. (November 11-14, 2002). Using High-Carbon Wood Ash to Control Odor at a Green Materials Composting Facility. *Soil Science Society Annual Conference*. Lecture conducted from Indianapolis, Maryland.
- Rosenfeld, P.E. (September 16, 2000). Two stage biofilter for biosolids composting odor control. *Water Environment Federation*. Lecture conducted from Anaheim California.
- Rosenfeld, P.E. (October 16, 2000). Wood ash and biofilter control of compost odor. *Biofest*. Lecture conducted from Ocean Shores, California.
- Rosenfeld, P.E. (2000). Bioremediation Using Organic Soil Amendments. *California Resource Recovery Association*. Lecture conducted from Sacramento California.
- Rosenfeld, P.E., C.L. Henry, R. Harrison. (1998). Oat and Grass Seed Germination and Nitrogen and Sulfur Emissions Following Biosolids Incorporation With High-Carbon Wood-Ash. *Water Environment Federation 12th Annual Residuals and Biosolids Management Conference Proceedings*. Lecture conducted from Bellevue Washington.
- Rosenfeld, P.E., and C.L. Henry. (1999). An evaluation of ash incorporation with biosolids for odor reduction. *Soil Science Society of America*. Lecture conducted from Salt Lake City Utah.
- Rosenfeld, P.E., C.L. Henry, R. Harrison. (1998). Comparison of Microbial Activity and Odor Emissions from Three Different Biosolids Applied to Forest Soil. *Brown and Caldwell*. Lecture conducted from Seattle Washington.

**Rosenfeld, P.E., C.L. Henry.** (1998). Characterization, Quantification, and Control of Odor Emissions from Biosolids Application To Forest Soil. *Biofest*. Lecture conducted from Lake Chelan, Washington.

**Rosenfeld, P.E., C.L. Henry, R. Harrison.** (1998). Oat and Grass Seed Germination and Nitrogen and Sulfur Emissions Following Biosolids Incorporation With High-Carbon Wood-Ash. Water Environment Federation 12th Annual Residuals and Biosolids Management Conference Proceedings. Lecture conducted from Bellevue Washington.

**Rosenfeld, P.E., C.L. Henry, R. B. Harrison, and R. Dills.** (1997). Comparison of Odor Emissions From Three Different Biosolids Applied to Forest Soil. *Soil Science Society of America*. Lecture conducted from Anaheim California.

### **Teaching Experience:**

UCLA Department of Environmental Health (Summer 2003 through 2010) Taught Environmental Health Science 100 to students, including undergrad, medical doctors, public health professionals and nurses. Course focused on the health effects of environmental contaminants.

National Ground Water Association, Successful Remediation Technologies. Custom Course in Sante Fe, New Mexico. May 21, 2002. Focused on fate and transport of fuel contaminants associated with underground storage tanks.

National Ground Water Association; Successful Remediation Technologies Course in Chicago Illinois. April 1, 2002. Focused on fate and transport of contaminants associated with Superfund and RCRA sites.

California Integrated Waste Management Board, April and May, 2001. Alternative Landfill Caps Seminar in San Diego, Ventura, and San Francisco. Focused on both prescriptive and innovative landfill cover design.

UCLA Department of Environmental Engineering, February 5, 2002. Seminar on Successful Remediation Technologies focusing on Groundwater Remediation.

University Of Washington, Soil Science Program, Teaching Assistant for several courses including: Soil Chemistry, Organic Soil Amendments, and Soil Stability.

U.C. Berkeley, Environmental Science Program Teaching Assistant for Environmental Science 10.

### **Academic Grants Awarded:**

California Integrated Waste Management Board. \$41,000 grant awarded to UCLA Institute of the Environment. Goal: To investigate effect of high carbon wood ash on volatile organic emissions from compost. 2001.

Synagro Technologies, Corona California: \$10,000 grant awarded to San Diego State University. Goal: investigate effect of biosolids for restoration and remediation of degraded coastal sage soils. 2000.

King County, Department of Research and Technology, Washington State. \$100,000 grant awarded to University of Washington: Goal: To investigate odor emissions from biosolids application and the effect of polymers and ash on VOC emissions. 1998.

Northwest Biosolids Management Association, Washington State. \$20,000 grant awarded to investigate effect of polymers and ash on VOC emissions from biosolids. 1997.

James River Corporation, Oregon: \$10,000 grant was awarded to investigate the success of genetically engineered Poplar trees with resistance to round-up. 1996.

United State Forest Service, Tahoe National Forest: \$15,000 grant was awarded to investigating fire ecology of the Tahoe National Forest. 1995.

Kellogg Foundation, Washington D.C. \$500 grant was awarded to construct a large anaerobic digester on St. Kitts in West Indies. 1993

### **Deposition and/or Trial Testimony:**

In the Circuit Court Of The Twentieth Judicial Circuit, St Clair County, Illinois  
Martha Custer et al., Plaintiff vs. Cerro Flow Products, Inc., Defendants  
Case No.: No. 0i9-L-2295  
Rosenfeld Deposition, 5-14-2021  
Trial, October 8-4-2021

In the Circuit Court of Cook County Illinois  
Joseph Rafferty, Plaintiff vs. Consolidated Rail Corporation and National Railroad Passenger Corporation  
d/b/a AMTRAK,  
Case No.: No. 18-L-6845  
Rosenfeld Deposition, 6-28-2021

In the United States District Court For the Northern District of Illinois  
Theresa Romcoe, Plaintiff vs. Northeast Illinois Regional Commuter Railroad Corporation d/b/a METRA  
Rail, Defendants  
Case No.: No. 17-cv-8517  
Rosenfeld Deposition, 5-25-2021

In the Superior Court of the State of Arizona In and For the Cunty of Maricopa  
Mary Tryon et al., Plaintiff vs. The City of Pheonix v. Cox Cactus Farm, L.L.C., Utah Shelter Systems, Inc.  
Case Number CV20127-094749  
Rosenfeld Deposition: 5-7-2021

In the United States District Court for the Eastern District of Texas Beaumont Division  
Robinson, Jeremy et al *Plaintiffs*, vs. CNA Insurance Company et al.  
Case Number 1:17-cv-000508  
Rosenfeld Deposition: 3-25-2021

In the Superior Court of the State of California, County of San Bernardino  
Gary Garner, Personal Representative for the Estate of Melvin Garner vs. BNSF Railway Company.  
Case No. 1720288  
Rosenfeld Deposition 2-23-2021

In the Superior Court of the State of California, County of Los Angeles, Spring Street Courthouse  
Benny M Rodriguez vs. Union Pacific Railroad, A Corporation, et al.  
Case No. 18STCV01162  
Rosenfeld Deposition 12-23-2020

In the Circuit Court of Jackson County, Missouri  
Karen Cornwell, *Plaintiff*, vs. Marathon Petroleum, LP, *Defendant*.  
Case No.: 1716-CV10006  
Rosenfeld Deposition. 8-30-2019

In the United States District Court For The District of New Jersey  
Duarte et al, *Plaintiffs*, vs. United States Metals Refining Company et. al. *Defendant*.  
Case No.: 2:17-cv-01624-ES-SCM  
Rosenfeld Deposition. 6-7-2019

- In the United States District Court of Southern District of Texas Galveston Division  
M/T Carla Maersk, *Plaintiffs*. vs. Conti 168., Schiffahrts-GMBH & Co. Bulker KG MS “Conti Perdido”  
*Defendant*.  
Case No.: 3:15-CV-00106 consolidated with 3:15-CV-00237  
Rosenfeld Deposition. 5-9-2019
- In The Superior Court of the State of California In And For The County Of Los Angeles – Santa Monica  
Carole-Taddeo-Bates et al., vs. Ifran Khan et al., Defendants  
Case No.: No. BC615636  
Rosenfeld Deposition, 1-26-2019
- In The Superior Court of the State of California In And For The County Of Los Angeles – Santa Monica  
The San Gabriel Valley Council of Governments et al. vs El Adobe Apts. Inc. et al., Defendants  
Case No.: No. BC646857  
Rosenfeld Deposition, 10-6-2018; Trial 3-7-19
- In United States District Court For The District of Colorado  
Bells et al. Plaintiff vs. The 3M Company et al., Defendants  
Case No.: 1:16-cv-02531-RBJ  
Rosenfeld Deposition, 3-15-2018 and 4-3-2018
- In The District Court Of Regan County, Texas, 112<sup>th</sup> Judicial District  
Phillip Bales et al., Plaintiff vs. Dow Agrosiences, LLC, et al., Defendants  
Cause No.: 1923  
Rosenfeld Deposition, 11-17-2017
- In The Superior Court of the State of California In And For The County Of Contra Costa  
Simons et al., Plaintiffs vs. Chevron Corporation, et al., Defendants  
Cause No C12-01481  
Rosenfeld Deposition, 11-20-2017
- In The Circuit Court Of The Twentieth Judicial Circuit, St Clair County, Illinois  
Martha Custer et al., Plaintiff vs. Cerro Flow Products, Inc.. Defendants  
Case No.: No. 0i9-L-2295  
Rosenfeld Deposition, 8-23-2017
- In United States District Court For The Southern District of Mississippi  
Guy Manuel vs. The BP Exploration et al., Defendants  
Case: No 1:19-cv-00315-RHW  
Rosenfeld Deposition, 4-22-2020
- In The Superior Court of the State of California, For The County of Los Angeles  
Warrn Gilbert and Penny Gilber, Plaintiff vs. BMW of North America LLC  
Case No.: LC102019 (c/w BC582154)  
Rosenfeld Deposition, 8-16-2017, Trail 8-28-2018
- In the Northern District Court of Mississippi, Greenville Division  
Brenda J. Cooper, et al., *Plaintiffs*, vs. Meritor Inc., et al., *Defendants*  
Case Number: 4:16-cv-52-DMB-JVM  
Rosenfeld Deposition: July 2017

- In The Superior Court of the State of Washington, County of Snohomish  
Michael Davis and Julie Davis et al., Plaintiff vs. Cedar Grove Composting Inc., Defendants  
Case No.: No. 13-2-03987-5  
Rosenfeld Deposition. February 2017  
Trial, March 2017
- In The Superior Court of the State of California, County of Alameda  
Charles Spain., Plaintiff vs. Thermo Fisher Scientific, et al., Defendants  
Case No.: RG14711115  
Rosenfeld Deposition, September 2015
- In The Iowa District Court In And For Poweshiek County  
Russell D. Winburn, et al., Plaintiffs vs. Doug Hoksbergen, et al., Defendants  
Case No.: LALA002187  
Rosenfeld Deposition, August 2015
- In The Circuit Court of Ohio County, West Virginia  
Robert Andrews, et al. v. Antero, et al.  
Civil Action NO. 14-C-30000  
Rosenfeld Deposition. June 2015
- In The Iowa District Court For Muscatine County  
Laurie Freeman et. al. Plaintiffs vs. Grain Processing Corporation, Defendant  
Case No 4980  
Rosenfeld Deposition: May 2015
- In the Circuit Court of the 17<sup>th</sup> Judicial Circuit, in and For Broward County, Florida  
Walter Hinton, et. al. Plaintiff, vs. City of Fort Lauderdale, Florida, a Municipality, Defendant.  
Case Number CACE07030358 (26)  
Rosenfeld Deposition: December 2014
- In the County Court of Dallas County Texas  
Lisa Parr et al, *Plaintiff*, vs. Aruba et al, *Defendant*.  
Case Number cc-11-01650-E  
Rosenfeld Deposition: March and September 2013  
Rosenfeld Trial: April 2014
- In the Court of Common Pleas of Tuscarawas County Ohio  
John Michael Abicht, et al., *Plaintiffs*, vs. Republic Services, Inc., et al., *Defendants*  
Case Number: 2008 CT 10 0741 (Cons. w/ 2009 CV 10 0987)  
Rosenfeld Deposition: October 2012
- In the United States District Court for the Middle District of Alabama, Northern Division  
James K. Benefield, et al., *Plaintiffs*, vs. International Paper Company, *Defendant*.  
Civil Action Number 2:09-cv-232-WHA-TFM  
Rosenfeld Deposition: July 2010, June 2011
- In the Circuit Court of Jefferson County Alabama  
Jaeanette Moss Anthony, et al., *Plaintiffs*, vs. Drummond Company Inc., et al., *Defendants*  
Civil Action No. CV 2008-2076  
Rosenfeld Deposition: September 2010
- In the United States District Court, Western District Lafayette Division  
Ackle et al., *Plaintiffs*, vs. Citgo Petroleum Corporation, et al., *Defendants*.  
Case Number 2:07CV1052  
Rosenfeld Deposition: July 2009

**EXHIBIT B**



SMITH ENGINEERING & MANAGEMENT

July 22, 2022

Ms. Tara Rengifo  
Adams Broadwell Joseph & Cardozo  
601 Gateway Boulevard, Suite 1000  
South San Francisco, CA 94080-7037

**Subject: Ocean Kamp Final Supplemental EIR and Responses to  
Comments P21019**

Dear Ms. Rengifo:

I reviewed the Final Supplemental Environmental Impact Report (the "FSEIR") for the Ocean Kamp Project (the "Project") in the City of Oceanside. My review is with respect to transportation and circulation considerations. Previously I reviewed and commented on the Draft Supplemental Environmental Impact Report (the "DSEIR") for the subject Project in a letter dated September 27, 2021. My qualifications to perform this review were thoroughly documented in that September 27 letter and my professional resume was attached thereto.

**Comment and Response J-56**

My first substantive comment on the DSEIR is now labeled J-56 in FSEIR Appendix O. It concerned use of an improper baseline for the Project site in computing the Project's impact on Vehicle Miles Traveled ("VMT"). In specific, the comment asserted that it appeared the baseline analysis assumed an approved project that was never built occupied the Project site in the baseline VMT runs of the SANDAG regional travel model. The response replies to this comment by reference to the response to Comment J-14 which is a summarization of my comment J-56. That response confirms that in the baseline VMT analysis, the SANDAG model assumed development of 33 acres of community shopping center on the Project site that was approved but never built. Although assuming that development may have been appropriate for runs of the SANDAG model for SANDAG's own regional planning and transportation planning purposes at an earlier point in time, it is wholly inappropriate in runs of the SANDAG model to determine the baseline for measuring the proposed

Project's VMT impacts. CEQA Guidelines §15125(a)(1) states in part: "Generally, the lead agency should describe physical environmental conditions as they exist at the time the notice of preparation is published, or if no notice of preparation is published, at the time environmental analysis is commenced, from both a local and regional perspective." Since the previously approved development never existed, it should not be assumed on the site in the baseline VMT run. This matter has been adjudicated in *Communities for a Better Environment v. South Coast Air Quality Management District* (March 15, 2010) 48 Cal.4th 310. In this matter, the ConocoPhillips Wilmington refinery proposed to modify its existing plant to refine ULSD fuel. The SCAQMD prepared a mitigated negative declaration for the project, based on its assertion that the "baseline" for analysis was the refinery's permitted boiler capacity. During SCAQMD's permitting process, Communities for a Better Environment (CBE) submitted expert testimony that SCAQMD had underestimated the NOx that would be produced by the modified refinery and countered that the baseline should be existing emissions, not those allowed under the refinery's permits. The SCAQMD approved the project. CBE sued, prevailing at the Court of Appeal. SCAQMD appealed the decision to the California Supreme Court. In its appeal, SCAQMD argued that the baseline should be the refinery running at full permitted capacity and that ConocoPhillips had a vested right to that level of capacity. The Supreme Court disagreed and decided in favor of CBE. The Supreme Court held that the proper baseline is existing conditions, not permitted conditions that had never actually occurred. In the words of the Court: "An approach using hypothetical allowable conditions as the baseline results in 'illusory' comparisons that 'can only mislead the public as to the reality of the impacts and subvert full consideration of the actual environmental impacts,' a result at direct odds with CEQA's intent."

Response J-14 continues to assert, without foundation, that a VMT baseline assuming completion of a previously approved but never built development on the Project site is appropriate. This is inconsistent with CEQA's requirements for establishing baseline conditions. Moreover, it is speculative for the response to assume that there are no changed conditions between 2008 or perhaps the 2006 or 2007 baseline conditions relative to which the 2008 project was approved and the conditions that exist in 2021/2022 that would require further review to proceed with the previously approved project.

Response J-14 is therefore inadequate. The VMT analysis must be redone relative to a baseline that does not assume VMT from hypothetical conditions on the Project site. Such an analysis will doubtless find that the Project does increase regional VMT and the SEIR must be revised and recirculated.

We also note for the record that Caltrans in part of Comment B-3 on the DSEIR asked the following question: "Please provide further details and an explanation

why the retail/commercial VMT will decrease by 917,756 with the addition of the Project." Response B-3 disingenuously and misleadingly replies that this is because of the mixed-use nature of the Project and fails to disclose that the decrease is because the baseline VMT computation included the VMT of an approved but never built retail project on the site.

### **Comment and Response J-57**

Comment J-57 on the DSEIR concerned the infeasibility and ineffectiveness of mitigating the Project's significant residential VMT impacts to less than significant levels through implementing community designs corresponding to Land Use /Transportation Measure LUT-9 as defined in *Quantifying Greenhouse Gas Mitigation Measures* published by the California Air Pollution Officers Association. The FSEIR's response refers to Comment J-20, which begins by summarizing our Comment J-57. Response J-20 describes how the DSEIR relied upon *Quantifying Greenhouse Gas Mitigation Measures* to derive its estimate of VMT mitigation, a point that was not contested in the comment. However, the response fails to respond to the central points of the comment, which are as follows:

- The Project's VMT analysis involves travel choices of residents between a Project comprising about 0.14 square miles and a region comprising some 4000 square miles (understanding that most of the trips would be to/from the developed urban and suburban areas of that 4000 square miles. Most of the developed and undeveloped 4000 square mile region does not share the LUT-9 design features ascribed to the project).
- Because of the very limited size of the area developed consistent with LUT-9 principles (0.14 square mile), those design features would affect only very short mostly internal trips.
- The DSEIR and FSEIR provide no quantification of the number of short trips that fall within the range of influence of the 0.14 square mile area developed consistent with LUT-9 principles.
- VMT savings through walking or biking rather than driving on small numbers of short trips could not plausibly change VMT per capita by the claimed 11.7 percent. Even if the LUT-9 design caused 11.7 percent of the trips to switch from automotive to non-automotive modes and each such shifted trip averaged 0.5 mile (both of which conditions seem excessively high, particularly since the *longest* trip that could possibly remain wholly within the Project is about 0.5 miles), that would only reduce the Project's VMT per capita resident to 15.064 VMT. This is still above the regional significant impact threshold of 14.96 VMT per capita resident.

The response also cites SANDAG Higher Density Development Measure as corroborating the DSEIR's interpretation of mitigation reliant on CAPCOA LUT-9. This is an inappropriate and misleading statement since it makes an apples-to-

oranges comparison. The SANDAG study evaluates what happens if future broad regional development over the next 20 or 30 years is channeled into higher density forms as compared to transportation results if development over the same future time period were to continue in current urban/suburban patterns. This is completely different from the situation in the DSEIR and FSEIR which are evaluating what happens if a 0.14 square mile area is developed in isolation in accordance with the principles of LUT-9. The SANDAG higher density measure is inapplicable to this project and provides no corroboration of the DSEIR/FSEIR findings.

#### **Comment and Response J-58**

This comment identifies a set of non-enforceable measures and several trip reduction strategies that are unquantified and dubious for various reasons that the comment explains. Response J-58 claims that these are not VMT mitigation measures since sufficient VMT mitigation is provided through Measure TRA-1 which implements the principles of CAPCOA LUT-9. However, as the sections above discuss in detail, as the result of the overestimation of the effectiveness of Mitigation Measure TRA-1 (CAPCOA LUT-9), the project's significant residential VMT impacts are not fully mitigated, and the effectiveness of further purported VMT reduction measures remains relevant. The Response claims that on the one hand the measures do not address the project's significant residential VMT impacts but then claims that the measures are in fact intended to further reduce the number/distance of automobile trips by residents of the project. The response thus fails to address the issue raised in the comment on the DSEIR and is deficient.

The response also claims that the proposed crosswalk at the intersection of Benet Road with Airport Road addresses a safety issue, not a VMT issue. However, since one threshold of significance for CEQA review of significant transportation impacts is whether the Project would substantially increase hazards due to geometric design features (e.g. sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment), the proposed crosswalk is relevant to the transportation impacts analysis. Since a crosswalk is a geometric feature and the presence or absence of one connotes a dangerous intersection, this is a matter subject to CEQA review and the lack of response is inadequate.

#### **Comments and Responses J-59, J-60 and J-61**

This sequence of comments pertains to the following threshold of significance for transportation impact: "Would the Project conflict with a program, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities?" My comments on the DSEIR explained that the Oceanside

General Plan includes Policy 3.20, which addresses LOS goals, and conformance to that Policy is a CEQA issue pursuant to the above-identified threshold. The comments also pointed out instances where the Project would be inconsistent with that Policy and where proposed improvements at certain intersections through fair share payments would not reduce impacts to less than significant levels.

The Responses attempt to evade the issue by claiming that a project can be generally conformant to the General Plan even if it does not conform to every General Plan policy. However, here, the Local Transportation Study identified 9 intersections and 2 road segments where the Project would cause significant effects, thereby conflicting with Policy 3.20 in the General Plan. Neither the discussion in Section 4.2, Land Use and Planning, nor Section 4.5, Transportation and Traffic, specifically analyze the findings in the Local Transportation Study and consistency with Policy 3.20. Therefore, the conclusion that the Project would not conflict with a policy addressing the circulation system is not supported by substantial evidence in the FSEIR or Responses. Furthermore, Response to Comment J-18 claims the Project is not responsible to fix existing deficiencies. Our comments do not advocate that the Project pay the full cost of improvements. Hence Response J-18 is non-responsive.

#### **Comment and Response J-62**

This comment pointed out the lack of a long-term cumulative transportation impact analysis of the Project.

The Response claims that a 2035 analysis was carried out for the Pavilion Project approved for the site in 2008, that the Pavilion Project involved over 13,000 more daily trips than the current subject Project, and that therefore a long range analysis for the current Project is not warranted.

This response fails to consider and address the following:

- Given that 14 years have passed since the 2008 approval and about 16 years since the transportation and development data relied upon in that analysis was likely acquired, much more is known now about the development that occurred in those intervening years and the development that is likely to occur between now and 2035 than the time when the Pavilion 2035 analysis was performed.
- In the years leading up to 2008, regional transportation plans assumed much more ambitious highway improvements than are now included by 2035 in the Regional Transportation Plan.<sup>1</sup>

<sup>1</sup> See <https://www.sandiegouniontribune.com/opinion/editorials/story/2021-12-08/sandag-160-billion-regional-transportation-plan-200-miles-high-speed-rail> and

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- Now, unlike in 2008, a VMT analysis is required. There was no VMT analysis in the 2008 Project's 2035 analysis.

In short, there are changed conditions that require a long-term cumulative impacts analysis.

### Conclusion

This completes my comments on the Ocean Kamp Project FSEIR. Given the foregoing, the FSEIR is unsuited for certification, the matters discussed herein should be subject to further analysis and the results recirculated in Draft status.

Sincerely,

Smith Engineering & Management  
A California Corporation



Daniel T. Smith Jr., P.E.  
President

<https://alankandel.scienceblog.com/2018/04/12/san-diego-regional-transportation-plan-dispute-outcome-sets-precedent-for-california-cities/> for example.

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## SMITH ENGINEERING & MANAGEMENT

### **DANIEL T. SMITH, Jr.** **President**

#### **EDUCATION**

Bachelor of Science, Engineering and Applied Science, Yale University, 1967  
Master of Science, Transportation Planning, University of California, Berkeley, 1968

#### **PROFESSIONAL REGISTRATION**

California No. 21913 (Civil)      Nevada No. 7969 (Civil)    Washington No. 29337 (Civil)  
California No. 938 (Traffic)      Arizona No. 22131 (Civil)

#### **PROFESSIONAL EXPERIENCE**

Smith Engineering & Management, 1993 to present, President.  
DKS Associates, 1979 to 1993. Founder, Vice President, Principal Transportation Engineer.  
De Leon, Cather & Company, 1968 to 1979. Senior Transportation Planner.  
Personal specialties and project experience include:

**Litigation Consulting.** Provides consultation, investigations and expert witness testimony in highway design, transit design and traffic engineering matters including condemnations involving transportation access issues; traffic accidents involving highway design or traffic engineering factors; land use and development matters involving access and transportation impacts; parking and other traffic and transportation matters.

**Urban Corridor Studies/Alternatives Analysis.** Principal-in-charge for State Route (SR) 102 Feasibility Study, a 35-mile freeway alignment study north of Sacramento. Consultant on I-280 Interstate Transfer Concept Program, San Francisco, an AA/EIS for completion of I-280, demolition of Embarcadero freeway, substitute light rail and commuter rail projects. Principal-in-charge, SR 238 corridor freeway/expressway design/environmental study, Hayward (Calif.) Project manager, Sacramento Northeast Area multi-modal transportation corridor study. Transportation planner for I-50N West Terminal Study, and Harbor Drive Traffic Study, Portland, Oregon. Project manager for design of surface segment of Woodward Corridor LRT, Detroit, Michigan. Directed staff on I-80 National Strategic Corridor Study (Sacramento-San Francisco), US 101-Sonoma freeway operations study, SR 92 freeway operations study, I-880 freeway operations study, SR 152 alignment studies, Sacramento RTD light rail systems study, Tasman Corridor LRT AA/EIS, Fremont-Warm Springs BART extension plan/EIR, SRs 70/99 freeway alternatives study, and Richmond Parkway (SR 93) design study.

**Area Transportation Plans.** Principal-in charge for transportation element of City of Los Angeles General Plan Framework, shaping nation's largest city two decades into 21<sup>st</sup> century. Project manager for the transportation element of 300-acre Mission Bay development in downtown San Francisco. Mission Bay involves 7 million sqf office/commercial space, 8,500 dwelling units, and community facilities. Transportation features include relocation of commuter rail station; extension of MUNI-Metro LRT; a multi-modal terminal for LRT, commuter rail and local bus; removal of a quarter mile elevated freeway; replacement by new ramps and a boulevard; an internal roadway network overcoming constraints imposed by an internal tidal basin; freeway structures and rail facilities; and concept plans for 20,000 structured parking spaces. Principal-in-charge for circulation plan to accommodate 9 million sqf of office/commercial growth in downtown Bellevue (Wash.). Principal-in-charge for 64 acre, 2 million sqf multi-use complex for FMC adjacent to San Jose International Airport. Project manager for transportation element of Sacramento Capitol Area Plan for the state governmental complex, and for Downtown Sacramento Redevelopment Plan. Project manager for Napa (Calif.) General Plan Circulation Element and Downtown Riverfront Redevelopment Plan, on parking program for downtown Walnut Creek, on downtown transportation plan for San Mateo and redevelopment plan for downtown Mountain View (Calif.), for traffic circulation and safety plans for California cities of Davis, Pleasant Hill and Hayward, and for Salem, Oregon.

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**Transportation Centers.** Project manager for Daly City Intermodal Study which developed a \$7 million surface bus terminal, traffic access, parking and pedestrian circulation improvements at the Daly City BART station plus development of functional plans for a new BART station at Colma. Project manager for design of multi-modal terminal (commuter rail, light rail, bus) at Mission Bay, San Francisco. In Santa Clarita Long Range Transit Development Program, responsible for plan to relocate system's existing timed-transfer hub and development of three satellite transfer hubs. Performed airport ground transportation system evaluations for San Francisco International, Oakland International, Sea-Tac International, Oakland International, Los Angeles International, and San Diego Lindberg.

**Campus Transportation.** Campus transportation planning assignments for UC Davis, UC Berkeley, UC Santa Cruz and UC San Francisco Medical Center campuses; San Francisco State University; University of San Francisco; and the University of Alaska and others. Also developed master plans for institutional campuses including medical centers, headquarters complexes and research & development facilities.

**Special Event Facilities.** Evaluations and design studies for football/baseball stadiums, indoor sports arenas, horse and motor racing facilities, theme parks, fairgrounds and convention centers, ski complexes and destination resorts throughout western United States.

**Parking.** Parking programs and facilities for large area plans and individual sites including downtowns, special event facilities, university and institutional campuses and other large site developments; numerous parking feasibility and operations studies for parking structures and surface facilities; also, resident preferential parking .

**Transportation System Management & Traffic Restraint.** Project manager on FHWA program to develop techniques and guidelines for neighborhood street traffic limitation. Project manager for Berkeley, (Calif.), Neighborhood Traffic Study, pioneered application of traffic restraint techniques in the U.S. Developed residential traffic plans for Menlo Park, Santa Monica, Santa Cruz, Mill Valley, Oakland, Palo Alto, Piedmont, San Mateo County, Pasadena, Santa Ana and others. Participated in development of photo/radar speed enforcement device and experimented with speed humps. Co-author of Institute of Transportation Engineers reference publication on neighborhood traffic control.

**Bicycle Facilities.** Project manager to develop an FHWA manual for bicycle facility design and planning, on bikeway plans for Del Mar, (Calif.), the UC Davis and the City of Davis. Consultant to bikeway plans for Eugene, Oregon, Washington, D.C., Buffalo, New York, and Skokie, Illinois. Consultant to U.S. Bureau of Reclamation for development of hydraulically efficient, bicycle safe drainage inlets. Consultant on FHWA research on effective retrofits of undercrossing and overcrossing structures for bicyclists, pedestrians, and handicapped.

#### **MEMBERSHIPS**

Institute of Transportation Engineers Transportation Research Board

#### **PUBLICATIONS AND AWARDS**

*Residential Street Design and Traffic Control*, with W. Homburger *et al.* Prentice Hall, 1989.

Co-recipient, Progressive Architecture Citation, *Mission Bay Master Plan*, with I.M. Pei WRT Associated, 1984.

*Residential Traffic Management, State of the Art Report*, U.S. Department of Transportation, 1979.

*Improving The Residential Street Environment*, with Donald Appleyard *et al.*, U.S. Department of Transportation, 1979.

*Strategic Concepts in Residential Neighborhood Traffic Control*, International Symposium on Traffic Control Systems, Berkeley, California, 1979.

*Planning and Design of Bicycle Facilities: Pitfalls and New Directions*, Transportation Research Board, Research Record 570, 1976.

Co-recipient, Progressive Architecture Award, *Livable Urban Streets, San Francisco Bay Area and London*, with Donald Appleyard, 1979.

**EXHIBIT C**

July 24, 2022

Ms. Tara C. Rengifo  
Adams Broadwell Joseph & Cardozo  
601 Gateway Boulevard, Suite 1000  
South San Francisco, CA 94080

**Subject: Comments on the Final Supplemental Environmental Impact Report for the Ocean KAMP Project**

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Dear Ms. Rengifo:

This letter contains my comments on the Final Supplemental Environmental Impact Report (“FSEIR”) prepared by the City of Oceanside (“City”) for the Ocean KAMP Project (“Project” or “currently proposed Project”). I submitted a comment letter on the Draft Supplemental Environmental Impact Report (“DSEIR”) that was prepared for the Project. That letter established my professional qualifications and described the actions I took to evaluate the DSEIR and underlying analyses. This letter addresses the FSEIR and the City’s responses to comments provided in Appendix O of the FSEIR. I also provide evidence that the Applicant has not complied with the wetland mitigation requirements adopted in the Final Environmental Impact Report for the Pavilion at Oceanside Project (“Pavilion FEIR”).

**The FSEIR Does Not Include a Copy of my Comment Letter, nor Does It Respond to All of the Issues I Raised**

The FSEIR does not include a copy of my DSEIR comment letter, nor does it provide a response to all of the issues raised in that letter. For example, one of the issues I raised was that several of the plants listed in the Applicant’s “Conceptual Landscape Palette” are invasive species:<sup>1</sup>

- *Washingtonia robusta*
- *Carex pendula*
- *Myoporum* sp.
- *Pittosporum* sp.
- *Cynodon dactylon* 'Tifgreen'

These species are known to invade riparian areas<sup>2</sup> and could have significant impacts on the ecological functions of the San Luis Rey River corridor.<sup>3</sup> I previously commented that the intentional use of invasive plants for Project landscaping would violate the terms of Pavilion

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<sup>1</sup> Cashen DSEIR comments, p. 10.

<sup>2</sup> See California Invasive Plant Council. 2022. The Cal-IPC Inventory. Available at: <<https://www.cal-ipc.org/plants/inventory/>>. (Accessed July 17, 2022).

<sup>3</sup> For example, see: Martus C. 2008. The establishment and impact of non-native Mexican fan palms (*Washingtonia robusta*) on native riparian habitats in San Diego County, California [thesis]. [San Marcos (CA)]: California State University San Marcos. See also San Diego Chapter of the American Society of the Landscape Architects (SD/ASLA) and the San Diego Chapter of the California Native Plant Society (CNPS). 2005. San Diego County Invasive Ornamental Plant Guide. Available at: <[https://www.asla-sandiego.org/aslasdwp/wp-content/uploads/2014/10/Most\\_Invasive\\_Plant\\_Guide.pdf](https://www.asla-sandiego.org/aslasdwp/wp-content/uploads/2014/10/Most_Invasive_Plant_Guide.pdf)>. (Accessed July 17, 2022).

FEIR mitigation measure BIO-7, which the FSEIR acknowledges applies to the Project. Measure BIO-7 states: “[l]andscaping within the development area shall avoid the use of invasive non-native plants, detailed in Table 5-5 of the draft HCP and/or the California Invasive Plant Inventory.” The FSEIR fails to address or rectify this issue.<sup>4</sup>

In order to comply with Measure BIO-7, the City must provide a revised landscape palette for the Project which removes invasive species. In addition, the FSEIR must be revised to discuss what mechanisms (if any) would prevent the Project’s residences (or property managers) from planting invasive species after development of the Project is complete.

### **Wetland Resources**

According to the FSEIR’s analysis of the Project’s environmental effects on biological resources:

“The entire upland area has been graded and mitigation measures have been implemented pursuant to the Pavilion FEIR. Wetland resources are being addressed through the permitting process and applicable mitigation in the Pavilion EIR MMRP.”<sup>5</sup>

This analysis in the FSEIR is based on false, or at a minimum, misleading statements. As demonstrated in the discussion and figures below, the FSEIR fails to disclose that in addition to the upland area, some of the wetland resources at the Project site were graded (sometime between August 2018 and August 2019). The grading of wetland resources on the Project site is not only improperly omitted from the FSEIR’s environmental setting and corresponding impacts analysis for biological resources, but those grading activities also violated the mitigation adopted in the Pavilion FEIR, which required the Applicant to obtain Army Corps of Engineers (“ACOE”) and California Department of Fish and Wildlife (“CDFW”) permits prior to grading in areas with jurisdictional waters.<sup>6</sup>

The Pavilion FEIR reported 0.73 acres of jurisdictional wetland communities at the Project site: southern willow scrub (0.12 ac), southern willow scrub-disturbed (0.39 ac), and disturbed wetland (0.22 ac).<sup>7</sup> Figure 1 provides the Pavilion FEIR’s map of these communities.<sup>8</sup> Figure 2 shows that the jurisdictional wetland communities in the western portion of the site were present in August 2018. Figure 3 demonstrates that these wetland communities were eliminated by grading activities that occurred sometime between August 2018 and August 2019. I found no evidence that: (a) the Applicant obtained permits from the appropriate regulatory agencies (i.e., ACOE, CDFW, and Regional Water Quality Control Board) prior to eliminating (grading) the wetland resources (as required under MM BIO-13);<sup>9</sup> or that (b) impacts to those wetland

<sup>4</sup> Despite my comments on this issue, the “Conceptual Landscape Palette” provided in the FSEIR (Table 2-4) has not been modified to remove invasive species.

<sup>5</sup> FSEIR, p. 5.1-8.

<sup>6</sup> Pavilion at Oceanside FEIR (part 1), p. D-7.

<sup>7</sup> Pavilion at Oceanside FEIR (part 1), Mitigation Plan for the Pavilion at Oceanside Property, p. 2. *See also* Pavilion FEIR, pp. S-13 and D-4.

<sup>8</sup> Pavilion at Oceanside FEIR (part 1), Mitigation Plan for the Pavilion at Oceanside Property, Figure 3.

<sup>9</sup> *For example, see* FSEIR, Appendix O, Comment C-1: “[a]lthough rough grading is currently occurring, the City will obtain wetland permits prior to precise grading of wetland areas.” Furthermore, the Applicant did not apply for 401 Water Quality Certification until April 9, 2020 (i.e., after grading occurred).

resources were mitigated in accordance with MM BIO-2.<sup>10</sup> This issue is compounded by the fact that the Applicant submitted misleading information in its 401 Water Quality Certification application (dated April 9, 2020) to the Regional Water Quality Control Board (“RWQCB”). Specifically, the application states that only 0.22 acres of jurisdictional waters occur at the Project site. The application then delineates this 0.22-acre feature on an aerial photograph taken in 2017 before the site was graded (*see* Figure 4, below). The wetland resources that occurred in the western portion of the Project site in 2017 were not delineated on the aerial photograph. Thus, the application conceals the fact that additional jurisdictional waters occurred at the site, and that those resources had already been eliminated by grading (without a permit).

Whereas the Pavilion FEIR required compensatory mitigation for impacts to 0.73 acres of jurisdictional wetlands,<sup>11</sup> the FSEIR only requires compensatory mitigation for impacts to 0.57 acres of wetlands.<sup>12</sup> The FSEIR’s response to this issue is that: “[i]t is not uncommon for the extent and quality of aquatic resources to fluctuate.”<sup>13</sup> However, the FSEIR also states that the “current delineation” of aquatic resources at the site has not yet been reviewed and confirmed by the resource agencies.<sup>14</sup> Therefore, there is no evidence that impacts would be limited to 0.57 acres of wetlands and thus the proposed mitigation in the FSEIR is not supported by substantial evidence and may be illusory.<sup>15</sup>

The FSEIR inaccurately reflects existing biological conditions on the site, which also skews the analysis of impacts to wetland resources from the Project. RTC J-27 incorrectly alleges that “[t]he most current delineation of aquatic resources represents current site conditions,....” However, this response is not supported by substantial evidence because grading activities of wetland resources clearly has occurred on the site without the requisite mitigation.

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<sup>10</sup> MM BIO-2 in the Pavilion FEIR entailed creation of wetland habitat 500 feet north of the Project boundary. This mitigation had not been initiated as of 1 August 2021 (the most recent Google Earth image). MM BIO-2 in the FSEIR entails purchase of credits at the San Luis Rey Mitigation Bank. There is no record of the Applicant having purchased these credits. *See*

<[https://ribits.ops.usace.army.mil/ords/f?p=107:ALIAS\\_LEDGER::ledger::RP,43:P43\\_BANK\\_ID:2068](https://ribits.ops.usace.army.mil/ords/f?p=107:ALIAS_LEDGER::ledger::RP,43:P43_BANK_ID:2068)>.

<sup>11</sup> Pavilion FEIR (part 1), p. D-4.

<sup>12</sup> FSEIR, p. 5.1-8.

<sup>13</sup> FSEIR, Response to Comment J-27.

<sup>14</sup> *Ibid.*

<sup>15</sup> According to the Applicant’s 9 April 2020 application for 401 Water Quality Certification, there are only 0.22 acres of waters of the state at the Project site.



**Vegetation Map/Project Impacts**  
**THE PAVILION AT OCEANSIDE**  
**Figure 3**



**Figure 1. Jurisdictional wetland communities (colored green) at the Project site.**



**Figure 2. Jurisdictional wetland communities (within red polygon) at the Project site in August 2018.**



**Figure 3. Image of the Project site in August 2019. Wetland communities within the red polygon have been eliminated by grading.**



**HELIX**

**Jurisdictional Areas**

Figure 5

Figure 4. Image submitted in the Applicant's 401 Water Quality Certification application (dated April 9, 2020). The aerial photo in the image was taken in 2017. Blue arrow points to the 0.22-acre jurisdictional wetland, which is longer and narrower than the 0.22-acre wetland delineated in the Pavilion FEIR. Red arrows point to jurisdictional wetlands that were delineated in the Pavilion FEIR and that were eliminated by grading that occurred between August 2018 and August 2019.

## Grassland Resources

The FSEIR summarizes direct impacts of the Pavilion at Oceanside Project as: “[i]mplementation of the prior project would impact all of the property, resulting in the loss of 0.73 acre of jurisdictional southern willow scrub and disturbed wetland; 0.70 acre of coyote brush scrub; 41.5 acres of non-native grassland; and 49.4 acres of non-native vegetation, disturbed land, and developed areas.”<sup>16</sup> The FSEIR does not revise these impact calculations, except in the unsubstantiated statement that “[i]mpacts will occur to 0.57 acre of wetlands.”<sup>17</sup>

According to the FSEIR, the entire upland area has been graded<sup>18</sup> and this grading impacted 36.34 acres of non-native grassland.<sup>19</sup> The FSEIR fails to explain the fate of the remaining 5.16 acres of grassland. This has implications on the accuracy of the information provided in the FSEIR and the Applicant’s compliance with the biological resource mitigation measures. Specifically, 5.32 acres of the Project site (5.16 acres of grassland and 0.16 acres of jurisdictional wetlands) that required compensatory mitigation pursuant to the Pavilion FEIR are unaccounted for in the FSEIR.

The FSEIR states: “mitigation measures have been implemented pursuant to the Pavilion FEIR.” This statement is false. Mitigation in the Pavilion FEIR states: “[p]roof of purchase of mitigation credits or other mitigation methods such as preservation/conservation for the loss of on-site upland habitats shall be required prior to issuance of the project’s grading permit.”<sup>20</sup> However, the Applicant did not provide proof that it purchased grassland mitigation habitat until 10 March 2020, approximately one year after the Applicant initiated grading at the Project site.<sup>21</sup> Furthermore, the 14.06 acres of grassland habitat acquired by the Applicant<sup>22</sup> does not satisfy the Pavilion FEIR’s requirement for compensatory mitigation at a 0.5:1 ratio (i.e., 20.75 acres).<sup>23</sup>

## Edge Effects

The Pavilion FEIR concluded that indirect impacts caused by “edge effects” would be potentially significant.<sup>24</sup> As stated in the Pavilion FEIR: “[e]dge effects of development adjacent to native habitats can include invasion by exotic species, intrusion of people and domestic animals, lighting and noise, all of which can lead to degradation of adjacent habitat(s).”<sup>25</sup>

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<sup>16</sup> FSEIR, p. 5.1-6.

<sup>17</sup> FSEIR, p. 5.1-8.

<sup>18</sup> *Ibid*.

<sup>19</sup> FSEIR, Appendix O, Response to Comment C-3.

<sup>20</sup> Pavilion FEIR (part 1), p. D-7.

<sup>21</sup> FSEIR, Appendix O, Comment C-3.

<sup>22</sup> *See* FSEIR, Appendix O, Comment C-3. The 19.9 acres of compensatory mitigation referenced in the comment applies to the 88.3-acre Reduced Project/Draft Subarea Plan Alternative approved by the City Council in 2008. The Reduced Project/Draft Subarea Plan Alternative would have impacted 39.8 acres of grassland (Pavilion FEIR, Table VI-C.2).

<sup>23</sup> Pavilion FEIR, p. D-5.

<sup>24</sup> Pavilion at Oceanside FEIR, pp. S-13 and -14.

<sup>25</sup> Pavilion at Oceanside FEIR, p. S-13.

## Brown-headed Cowbirds, Free-roaming Cats, and Argentine Ants

As explained in my previous comment letter, the Ocean KAMP Project would include anthropogenic features (e.g., residences, lawns, bird feeders, parks, picnic areas) that are known to support and attract brown-headed cowbirds, free-roaming cats, and Argentine ants. Nest parasitism by the brown-headed cowbird (a species that is not indigenous to California) is a primary threat to the least Bell's vireo,<sup>26</sup> coastal California gnatcatcher,<sup>27</sup> yellow warbler,<sup>28</sup> and other special-status species that nest in open space habitat near the Project site.<sup>29</sup> Free-roaming cats are recreational hunters that kill numerous birds and other native fauna.<sup>30</sup> The Argentine ant is an invasive species that has severe, adverse effects on native biota.<sup>31</sup>

The DSEIR failed to analyze how edge effects associated with the Ocean KAMP Project might result in new significant impacts as compared to the Pavilion at Oceanside Project. The FSEIR provides the following response to this issue:

“There are existing residential uses in the immediate area and the area surrounding the project site is already urbanized with a mix of residential, non-residential, and recreational uses. The addition of similar uses in an already urbanized areas is not expected to substantively contribute to conditions associated with the existing presence of Argentine ants, the brown-headed cowbird, or predation by domestic pets, and no new or more severe impact associated with these issues will occur. With regard to avian collisions and in response to a similar comment received by CDFW (refer to Response C-5), the project has committed to incorporate PDF BIO-2 Standards for Bird-Safe Buildings to reduce the potential for avian collisions. Indirect impacts associated with invasive species will not increase from those impacts analyzed and mitigated by Mitigation Measure BIO-7 of the Pavilion EIR. Please also refer to Response I-10 with regard to lighting and E-7 with regard to impacts to the wildlife corridor.”<sup>32</sup>

The FSEIR's response lacks credibility for several reasons. First, the DSEIR stated that: (a) all biological resource issues would be within the scope of impacts analyzed in the Pavilion FEIR,<sup>33</sup> and that (b) “[n]o additional biological resources beyond those identified in the Pavilion FEIR

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<sup>26</sup> Lynn S, Kus B. 2011. Distribution, Abundance, and Breeding Activities of the Least Bell's Vireo along the San Diego River, California. 2011 Annual Data Summary. USGS Western Ecological Research Center, San Diego Field Station. 59 pp.

<sup>27</sup> U.S. Fish and Wildlife Service. 2010. Coastal California gnatcatcher (*Poliophtila californica californica*), 5-year Review: Summary and Evaluation. Carlsbad Fish and Wildlife Office, Carlsbad, CA.

<sup>28</sup> Shuford WD, Gardali T (editors). 2008. California Bird Species of Special Concern: A Ranked Assessment of Species, Subspecies, and Distinct Populations of Birds of Immediate Conservation Concern in California. Western Field Ornithologists and California Department of Fish and Game.

<sup>29</sup> Pavilion at Oceanside FEIR (part 2), p. 66. See also eBird. 2022. eBird: An online database of bird distribution and abundance [web application]. eBird, Ithaca, New York. Available at: <<https://ebird.org/home>>. (Accessed July 17, 2022).

<sup>30</sup> Cashen DSEIR comments, pp. 3 and 4.

<sup>31</sup> *Ibid*, p. 2.

<sup>32</sup> FSEIR, Response to Comment J-26.

<sup>33</sup> DSEIR, p. 5.1-1.

would occur with implementation of the proposed Project.”<sup>34</sup> These statements are false because the City’s rationale for concluding that the Pavilion at Oceanside Project would not have significant impacts due to the introduction of Argentine ants and domestic animals (particularly cats)<sup>35</sup> was that “*the project does not include any residential uses.*”<sup>36</sup> Thus, indirect impacts associated with the currently proposed residential development were not “within the scope of impacts analyzed in the Pavilion FEIR.” The current Project, by contrast, will include approximately 36 acres of residential uses within the northern and eastern portions of the site, including up to 700 multi-family residential dwelling units.<sup>37</sup> This change in use from the project analyzed in the Pavilion FEIR results in new potentially significant impacts that were not previously analyzed and must therefore be addressed in the SEIR. For example, the Applicant’s plan to construct approximately 146 dwelling units in the lots bordering the biological open space (onsite 100-foot corridor) may create an ecological trap<sup>38</sup> by attracting sensitive bird species (i.e., the stated purpose of the open space)<sup>39</sup> to an area where they would be highly susceptible to depredation by domestic cats associated with the dwelling units.

The City, after previously admitting that “new development always has potential to introduce domestic animals into the surrounding habitat,”<sup>40</sup> and “residential uses usually introduce Argentine ants (*Linepithema humile*) to local habitats,”<sup>41</sup> is now attempting to backtrack and claim that the Ocean KAMP Project would not cause new or more severe impacts because “[t]here are existing residential uses in the immediate area and the area surrounding the project site is already urbanized.” This claim lacks credibility because there have not been appreciable changes in land uses surrounding the Project site since the City released the Pavilion FEIR in 2008 (Figure 5, below). Therefore, if residential uses in the immediate area preclude the potential for the Ocean KAMP Project to cause significant edge effects (e.g., due to Argentine ants or domestic pets), that same rationale would have applied to the Pavilion at Oceanside Project in 2008. However, despite presence of urban and residential development around the Project site in 2008, the Pavilion FEIR identified “residential uses” of the Project site as a variable that could have significant impacts on native fauna in adjacent habitat (e.g., open space associated with the San Luis Rey River).<sup>42</sup>

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<sup>34</sup> DSEIR, p. 5.1-8.

<sup>35</sup> The Pavilion at Oceanside FEIR did not analyze impacts associated with the brown-headed cowbird.

<sup>36</sup> Pavilion at Oceanside FEIR, Appendix C (Biological Resources Report), p. 29. [emphasis added].

<sup>37</sup> FSEIR, p. 5-2.

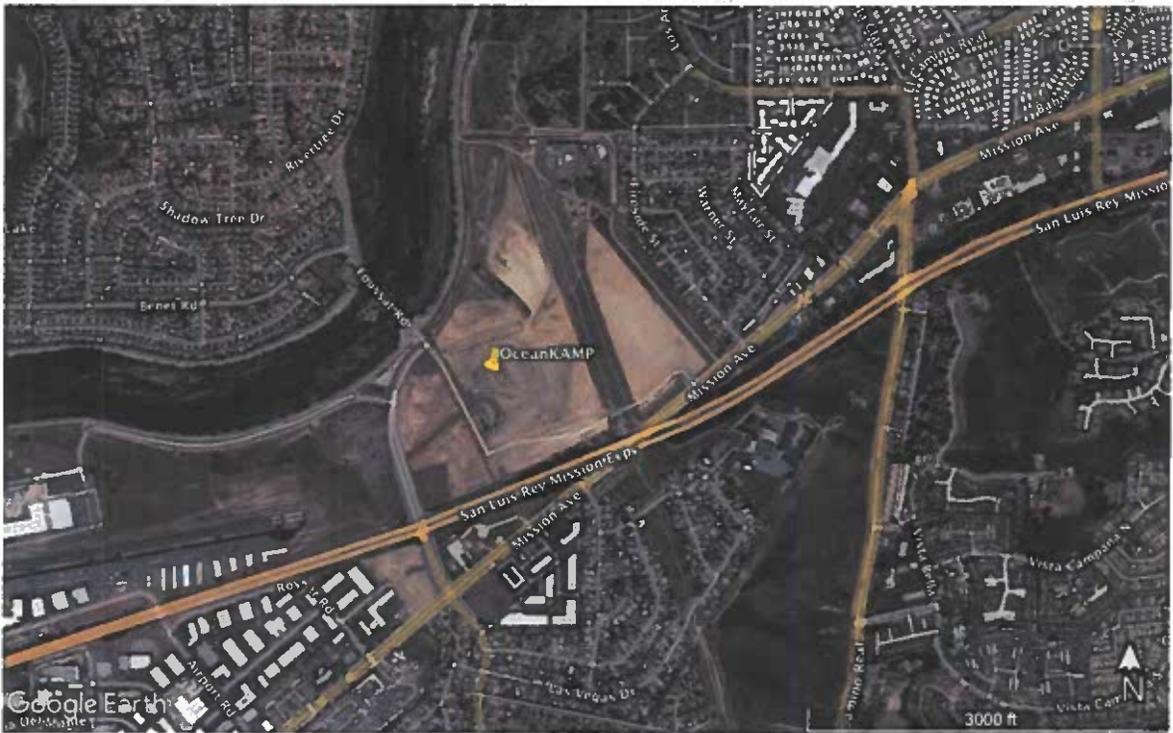
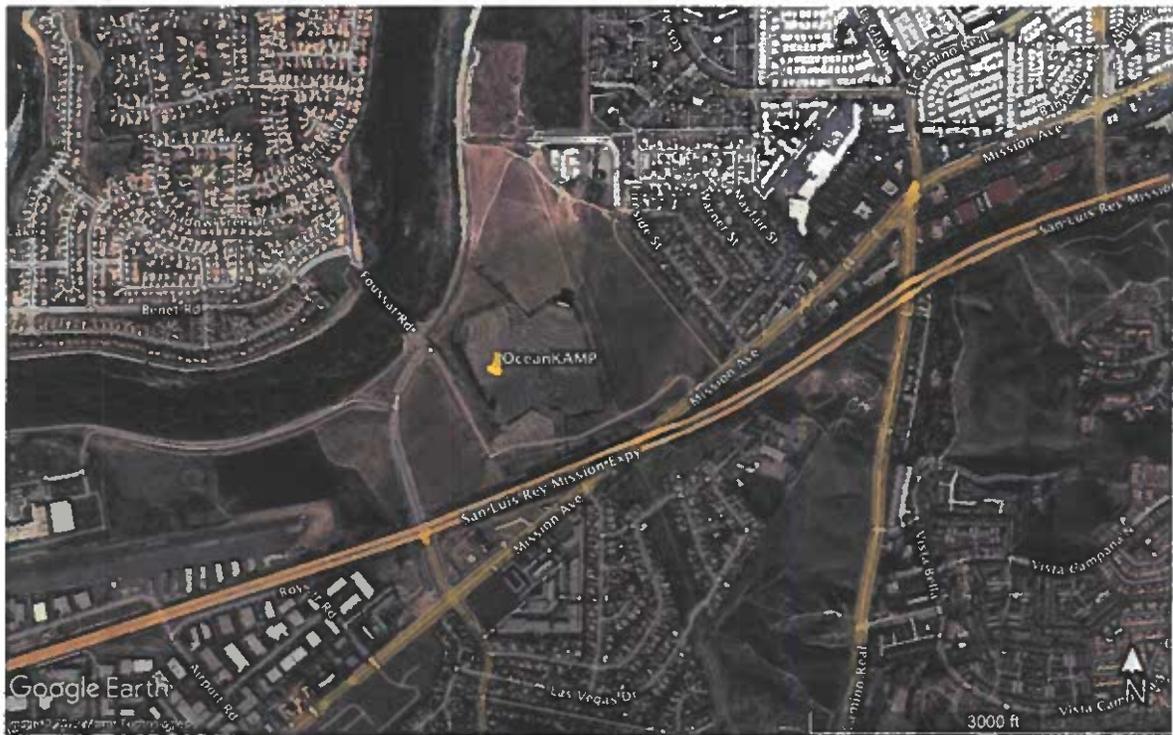
<sup>38</sup> An “ecological trap” occurs when an organism is lured into habitat where it either dies or has reduced reproductive output. See Robertson BA, Rehage JS, Sih A. 2013. Ecological novelty and the emergence of evolutionary traps. *Trends in Ecology & Evolution* 28:552-560.

<sup>39</sup> DSEIR, p. 2-11.

<sup>40</sup> Pavilion at Oceanside FEIR, Appendix C (Biological Resources Report), p. 28.

<sup>41</sup> *Ibid*, p. 29.

<sup>42</sup> Pavilion at Oceanside FEIR, p. 13 and Appendix C (Biological Resources Report), pp. 28 and 29.



**Figure 5. Land uses surrounding the Project site (yellow pin) in January 2008 (top image) and August 2021 (bottom image).**

Second, the FSEIR's response ignores the fact that even if Argentine ants, domestic pets, and edge effects already occur in the area, the Ocean KAMP Project could contribute to more severe cumulative impacts (than the Pavilion at Oceanside Project) due to the proposed residential development. Although the Pavilion FEIR highlighted residential development as a variable that would cause some edge effects to be more severe, neither the DSEIR nor the FSEIR analyzed the Project's potential to cause more severe cumulative impacts.

Third, the FSEIR provides no evidence (e.g., data or analysis) to support its arguments that "[t]he addition of similar uses in an already urbanized areas is not expected to substantively contribute to conditions associated with the existing presence of Argentine ants, the brown-headed cowbird, or predation by domestic pets."<sup>43</sup> Contrary to what the FSEIR suggests, the issue is not whether Argentine ants, brown-headed cowbirds, and domestic pets already exist in the Project area, but rather: (a) whether the Project would increase the abundance of those taxa in the Project area, and (b) how an increase in abundance would affect sensitive biological resources. With respect to the first question, the Project would create or enhance habitat for all three taxa.<sup>44</sup> Therefore, it is reasonable to expect the Project would increase their abundance (e.g., at least some of the residents would have free-roaming cats or bird feeders that support cowbirds).<sup>45</sup> With respect to the second question, there is scientific evidence demonstrating that the severity of adverse effects on native fauna is correlated with the abundance of free-roaming cats and brown-headed cowbirds.<sup>46,47</sup>

Fourth, the FSEIR argues: "[i]ndirect impacts associated with invasive species will not increase from those impacts analyzed and mitigated by Mitigation Measure BIO-7 of the Pavilion EIR." This is not a valid argument because the Pavilion FEIR indicated that impacts associated with invasive animals would increase if the Project included residential development. Because the Pavilion at Oceanside Project did not include residential development, the FEIR determined that mitigation was not required for invasive animals. As a result, Mitigation Measure BIO-7 was limited to the requirement that: "[l]andscaping within the development area shall avoid the use of invasive non-native plants." Not only does Mitigation Measure BIO-7 fail to address the Ocean KAMP Project's new potential to cause more severe impacts than previously analyzed due to invasive animals, but there is uncertainty as to whether it would mitigate significant impacts associated with invasive plants given the City's failure to remove invasive plants from the landscape palette proposed in the FSEIR.

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<sup>43</sup> FSEIR, Response to Comment J-26.

<sup>44</sup> Cashen DSEIR comments, pp. 2 through 4, and p. 12.

<sup>45</sup> *For example, see* Borgmann KL, Morrison ML. 2010. Factors Influencing the Frequency of Nest Parasitism by Brown-Headed Cowbirds in the Northern Sierra Nevada. *Western North American Naturalist* 70(2):137–143.

<sup>46</sup> *Ibid.* See also Cashen DSEIR comments, pp. 3 and 4.

<sup>47</sup> Unlike the brown-headed cowbird and free-roaming cats, the Argentine ant population in the San Luis Rey River corridor could theoretically be at carrying capacity. Therefore, I am unable to formulate a conclusion pertaining to the Argentine ant without information on its current distribution and abundance along the river corridor.

## Night Lighting

Ecological light pollution has demonstrable effects on the behavioral and population ecology of organisms, with serious implications on community ecology.<sup>48</sup> Due to changes in the development plan and proposed uses of the site, the lighting plan for the Ocean KAMP Project will differ from the one for the Pavilion at Oceanside Project. At a minimum, the Applicant's proposal to construct residential units in the immediate vicinity of the San Luis Rey River would increase the amount of ecological light pollution in the river corridor.<sup>49</sup>

The FSEIR provides the following response to Comment I-10 regarding the Project's lighting impacts:

“All lighting is required to adhere to City's strict Municipal Code Light Pollution Ordinance, the intent of which is to restrict the permitted use of certain light fixtures emitting undesirable light rays into the night sky and provides the requirements for lamp source and shielding of light emissions for outdoor light fixtures. Project compliance with this ordinance will reduce any potential for substantial sources of light to pollute the night sky or adjacent properties. Additionally, potential indirect light impacts were analyzed regarding wildlife along the eastern Project boundary.”<sup>50</sup>

As explained in Comment I-10, compliance with the City's Light Pollution Ordinance does not ensure that lighting associated with the Project would have less-than-significant impacts on biological resources. As explained in my previous comment letter, light that affects astronomical observation and research (i.e., astronomical light pollution) is a different phenomenon from light that alters the natural patterns of light and dark in ecosystems (i.e., ecological light pollution).<sup>51</sup> The stated intent of the City's Light Pollution Ordinance is to: “restrict the permitted use of certain light fixtures emitting into the night sky undesirable light rays which have a detrimental effect on astronomical observation and research.”<sup>52</sup> Thus, the City's Light Pollution Ordinance is designed to mitigate astronomical light pollution—not ecological light pollution. Furthermore, the City's Light Pollution Ordinance allows very bright lights (up to 4,050 lumens) that may be illuminated all night. Shielding these lights to minimize the amount of light directed into the sky (as required under the Light Pollution Ordinance, Sec. 39.6[b]) does not prevent significant impacts to organisms that occur at or near ground level, including special-status species associated with the San Luis Rey River corridor. This is important because the potentially significant impact identified in the Pavilion FEIR is: “[n]ight-lighting [that] can spillover into adjacent habitats, potentially interfering with wildlife movement and nocturnal habitats of certain species...[o]f concern for the project are the sensitive species occurring off-site in the adjacent open space associated with the San Luis Rey River.”<sup>53</sup> The FSEIR fails to incorporate mitigation

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<sup>48</sup> Cashen DSEIR comments, p. 11.

<sup>49</sup> *Ibid.*

<sup>50</sup> FSEIR, Response to Comment I-10.

<sup>51</sup> Cashen DSEIR comments, p. 11.

<sup>52</sup> The Code of the City of Oceanside, California. Chapter 39 - Light Pollution Regulations. Available at: <[https://library.municode.com/ca/oceanside/codes/code\\_of\\_ordinances?nodeId=CH39LIPORE](https://library.municode.com/ca/oceanside/codes/code_of_ordinances?nodeId=CH39LIPORE)>.

<sup>53</sup> Pavilion at Oceanside FEIR, p. S-13.

for this potentially significant impact, which is more severe than the impact associated with the Pavilion at Oceanside Project due to significant revisions to the development plan.

### **Conclusions**

For the reasons described above, and because the FSEIR fails to rectify the issues identified in my previous comment letter, I maintain the conclusion that the currently proposed Project would: (a) generate new, potentially significant impacts, and (b) substantially increase the severity of impacts identified in the Pavilion FEIR. The FSEIR fails to adequately disclose and analyze those impacts. In addition, the mitigation measures proposed in the FSEIR are not sufficient to reduce the impacts to less-than-significant levels because those mitigation measures were specifically formulated for a project that did not include residential development. Finally, the FSEIR's analysis of impacts on wetland resources remains deficient, and the Applicant's violation of wetland mitigation measures while grading the site in 2019 demonstrates the City lacks a mechanism for ensuring the mitigation measures proposed in the FSEIR would reduce the Project's impacts to less-than-significant levels.

Sincerely,



Scott Cashen, M.S.  
Senior Biologist

**Scott Cashen, M.S.**  
**Senior Wildlife Biologist**

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Scott Cashen has 28 years of professional experience in natural resources management. During that time he has worked as a field biologist, forester, environmental consultant, and instructor of Wildlife Management. Mr. Cashen focuses on CEQA/NEPA compliance issues, endangered species, scientific field studies, and other topics that require a high level of scientific expertise.

Mr. Cashen has knowledge and experience with numerous taxa, ecoregions, biological resource issues, and environmental regulations. As a biological resources expert, Mr. Cashen is knowledgeable of the various agency-promulgated guidelines for field surveys, impact assessments, and mitigation. Mr. Cashen has led field investigations on several special-status species, including ones focusing on the yellow-legged frog, red-legged frog, desert tortoise, steelhead, burrowing owl, California spotted owl, northern goshawk, willow flycatcher, Peninsular bighorn sheep, red panda, and various forest carnivores.

Mr. Cashen is a recognized expert on the environmental impacts of renewable energy development. He has been involved in the environmental review process of over 100 solar, wind, biomass, and geothermal energy projects. Mr. Cashen's role in this capacity has encompassed all stages of the environmental review process, from initial document review through litigation support. Mr. Cashen provided expert witness testimony on several of the Department of the Interior's "fast-tracked" renewable energy projects. His testimony on those projects helped lead agencies develop project alternatives and mitigation measures to reduce environmental impacts associated with the projects.

Mr. Cashen was a member of the independent scientific review panel for the Quincy Library Group project, the largest community forestry project in the United States. As a member of the panel, Mr. Cashen was responsible for advising the U.S. Forest Service on its scientific monitoring program, and for preparing a final report to Congress describing the effectiveness of the Herger-Feinstein Forest Recovery Act of 1998.

**AREAS OF EXPERTISE**

- CEQA, NEPA, and Endangered Species Act compliance issues
- Comprehensive biological resource assessments
- Endangered species management
- Renewable energy development
- Scientific field studies, grant writing and technical editing

**EDUCATION**

M.S. Wildlife and Fisheries Science - The Pennsylvania State University (1998)

*Thesis: Avian Use of Restored Wetlands in Pennsylvania*

B.S. Resource Management - The University of California, Berkeley (1992)

## **PROFESSIONAL EXPERIENCE**

### **Litigation Support / Expert Witness**

Mr. Cashen has served as a biological resources expert for over 125 projects subject to environmental review under the California Environmental Quality Act (CEQA) and/or the National Environmental Policy Act (NEPA). As a biological resources expert, Mr. Cashen reviews CEQA/NEPA documents and provides his clients with an assessment of biological resource issues. He then submits formal comments on the scientific and legal adequacy of the project's environmental documents (e.g., Environmental Impact Report). If needed, Mr. Cashen conducts field studies to generate evidence for legal testimony, or he can obtain supplemental testimony from his deep network of species-specific experts. Mr. Cashen has provided written and oral testimony to the California Energy Commission, California Public Utilities Commission, and U.S. district courts. His clients have included law firms, non-profit organizations, and citizen groups.

### **REPRESENTATIVE EXPERIENCE**

#### **Solar Energy**

- Abengoa Mojave Solar Project
- Avenal Energy Power Plant
- Beacon Solar Energy Project
- Blythe Solar Power Project
- Calico Solar Project
- California Flats Solar Project
- Calipatria Solar Farm II
- Carrizo Energy Solar Farm
- Catalina Renewable Energy
- Fink Road Solar Farm
- Genesis Solar Energy Project
- Heber Solar Energy Facility
- Imperial Valley Solar Project
- Ivanpah Solar Electric Generating
- Maricopa Sun Solar Complex
- McCoy Solar Project
- Mt. Signal and Calexico Solar
- Panoche Valley Solar
- San Joaquin Solar I & II
- San Luis Solar Project
- Stateline Solar Project
- Solar Gen II Projects
- SR Solis Oro Loma
- Vestal Solar Facilities
- Victorville 2 Power Project
- Willow Springs Solar

#### **Geothermal Energy**

- Casa Diablo IV Geothermal
- East Brawley Geothermal
- Mammoth Pacific 1 Replacement
- Orni 21 Geothermal Project
- Western GeoPower Plant

#### **Wind Energy**

- Catalina Renewable Energy
- Ocotillo Wind Energy Project
- SD County Wind Energy
- Searchlight Wind Project
- Shu'luuk Wind Project
- Tres Vaqueros Repowering Project
- Tule Wind Project
- Vasco Winds Relicensing Project

#### **Biomass Facilities**

- CA Ethanol Project
- Colusa Biomass Project
- Tracy Green Energy Project

#### **Other Development Projects**

- Cal-Am Desalination Project
- Carnegie SVRA Expansion Project
- Lakeview Substation Project
- Monterey Bay Shores Ecoresort
- Phillips 66 Rail Spur
- Valero Benecia Crude By Rail
- World Logistics Center

## **Project Management**

Mr. Cashen has managed several large-scale wildlife, forestry, and natural resource management projects. Many of the projects have required hiring and training field crews, coordinating with other professionals, and communicating with project stakeholders. Mr. Cashen's experience in study design, data collection, and scientific writing make him an effective project manager, and his background in several different natural resource disciplines enable him to address the many facets of contemporary land management in a cost-effective manner.

### REPRESENTATIVE EXPERIENCE

#### *Wildlife Studies*

- Peninsular Bighorn Sheep Resource Use and Behavior Study: (CA State Parks)
- "KV" Spotted Owl and Northern Goshawk Inventory: (USFS, Plumas NF)
- Amphibian Inventory Project: (USFS, Plumas NF)
- San Mateo Creek Steelhead Restoration Project: (Trout Unlimited and CA Coastal Conservancy, Orange County)
- Delta Meadows State Park Special-Status Species Inventory: (CA State Parks, Locke)

#### *Natural Resources Management*

- Mather Lake Resource Management Study and Plan – (Sacramento County)
- Placer County Vernal Pool Study – (Placer County)
- Weidemann Ranch Mitigation Project – (Toll Brothers, Inc., San Ramon)
- Ion Communities Biological Resource Assessments – (Ion Communities, Riverside and San Bernardino Counties)
- Del Rio Hills Biological Resource Assessment – (The Wyro Company, Rio Vista)

#### *Forestry*

- Forest Health Improvement Projects – (CalFire, SD and Riverside Counties)
- San Diego Bark Beetle Tree Removal Project – (SDG&E, San Diego Co.)
- San Diego Bark Beetle Tree Removal Project – (San Diego County/NRCS)
- Hillslope Monitoring Project – (CalFire, throughout California)

## Biological Resources

Mr. Cashen has a diverse background with biological resources. He has conducted comprehensive biological resource assessments, habitat evaluations, species inventories, and scientific peer review. Mr. Cashen has led investigations on several special-status species, including ones focusing on the foothill yellow-legged frog, mountain yellow-legged frog, desert tortoise, steelhead, burrowing owl, California spotted owl, northern goshawk, willow flycatcher, Peninsular bighorn sheep, red panda, and forest carnivores.

### REPRESENTATIVE EXPERIENCE

#### *Biological Assessments/Biological Evaluations ("BA/BE")*

- Aquatic Species BA/BE – Reliable Power Project (*SFPUC*)
- Terrestrial Species BA/BE – Reliable Power Project (*SFPUC*)
- Management Indicator Species Report – Reliable Power Project (*SFPUC*)
- Migratory Bird Report – Reliable Power Project (*SFPUC*)
- Terrestrial and Aquatic Species BA – Lower Cherry Aqueduct (*SFPUC*)
- Terrestrial and Aquatic Species BE – Lower Cherry Aqueduct (*SFPUC*)
- Terrestrial and Aquatic Species BA/BE – Public Lands Lease Application (*Society for the Conservation of Bighorn Sheep*)
- Terrestrial and Aquatic Species BA/BE – Simon Newman Ranch (*The Nature Conservancy*)
- Draft EIR (Vegetation and Special-Status Plants) - Wildland Fire Resiliency Program (*Midpeninsula Regional Open Space District*)

#### *Avian*

- Study design and Lead Investigator - Delta Meadows State Park Special-Status Species Inventory (*CA State Parks: Locke*)
- Study design and lead bird surveyor - Placer County Vernal Pool Study (*Placer County: throughout Placer County*)
- Surveyor - Willow flycatcher habitat mapping (*USFS: Plumas NF*)
- Surveyor - Tolay Creek, Cullinan Ranch, and Guadacanal Village restoration projects (*Ducks Unlimited/USGS: San Pablo Bay*)
- Study design and Lead Investigator - Bird use of restored wetlands research (*Pennsylvania Game Commission: throughout Pennsylvania*)
- Study design and surveyor - Baseline inventory of bird species at a 400-acre site in Napa County (*HCV Associates: Napa*)
- Surveyor - Baseline inventory of bird abundance following diesel spill (*LFR Levine-Fricke: Suisun Bay*)

- Study design and lead bird surveyor - Green Valley Creek Riparian Restoration Site (*City of Fairfield: Fairfield, CA*)
- Surveyor - Burrowing owl relocation and monitoring (*US Navy: Dixon, CA*)
- Surveyor - Pre-construction burrowing owl surveys (*various clients: Livermore, San Ramon, Rio Vista, Napa, Victorville, Imperial County, San Diego County*)
- Surveyor - Backcountry bird inventory (*National Park Service: Eagle, Alaska*)
- Lead surveyor - Tidal salt marsh bird surveys (*Point Reyes Bird Observatory: throughout Bay Area*)
- Surveyor - Pre-construction surveys for nesting birds (*various clients and locations*)

#### *Amphibian*

- Crew Leader - Red-legged frog, foothill yellow-legged frog, and mountain yellow-legged frog surveys (*USFS: Plumas NF*)
- Surveyor - Foothill yellow-legged frog surveys (*PG&E: North Fork Feather River*)
- Surveyor - Mountain yellow-legged frog surveys (*El Dorado Irrigation District: Desolation Wilderness*)
- Crew Leader - Bullfrog eradication (*Trout Unlimited: Cleveland NF*)

#### *Fish and Aquatic Resources*

- Surveyor - Hardhead minnow and other fish surveys (*USFS: Plumas NF*)
- Surveyor - Weber Creek aquatic habitat mapping (*El Dorado Irrigation District: Placerville, CA*)
- Surveyor - Green Valley Creek aquatic habitat mapping (*City of Fairfield: Fairfield, CA*)
- GPS Specialist - Salmonid spawning habitat mapping (*CDFG: Sacramento River*)
- Surveyor - Fish composition and abundance study (*PG&E: Upper North Fork Feather River and Lake Almanor*)
- Crew Leader - Surveys of steelhead abundance and habitat use (*CA Coastal Conservancy: Gualala River estuary*)
- Crew Leader - Exotic species identification and eradication (*Trout Unlimited: Cleveland NF*)

#### *Mammals*

- Principal Investigator - Peninsular bighorn sheep resource use and behavior study (*California State Parks: Freeman Properties*)

- Scientific Advisor – Study on red panda occupancy and abundance in eastern Nepal (*The Red Panda Network: CA and Nepal*)
- Surveyor - Forest carnivore surveys (*University of CA: Tahoe NF*)
- Surveyor - Relocation and monitoring of salt marsh harvest mice and other small mammals (*US Navy: Skagg's Island, CA*)
- Surveyor – Surveys for Monterey dusky-footed woodrat. Relocation of woodrat houses (*Touré Associates: Prunedale*)

*Natural Resource Investigations / Multiple Species Studies*

- Scientific Review Team Member – Member of the scientific review team assessing the effectiveness of the US Forest Service's implementation of the Herger-Feinstein Quincy Library Group Act.
- Lead Consultant - Baseline biological resource assessments and habitat mapping for CDF management units (*CDF: San Diego, San Bernardino, and Riverside Counties*)
- Biological Resources Expert – Peer review of CEQA/NEPA documents (*various law firms, non-profit organizations, and citizen groups*)
- Lead Consultant - Pre- and post-harvest biological resource assessments of tree removal sites (*SDG&E: San Diego County*)
- Crew Leader - T&E species habitat evaluations for Biological Assessment in support of a steelhead restoration plan (*Trout Unlimited: Cleveland NF*)
- Lead Investigator - Resource Management Study and Plan for Mather Lake Regional Park (*County of Sacramento: Sacramento, CA*)
- Lead Investigator - Biological Resources Assessment for 1,070-acre Alfaro Ranch property (*Yuba County, CA*)
- Lead Investigator - Wildlife Strike Hazard Management Plan (*HCV Associates: Napa*)
- Lead Investigator - Del Rio Hills Biological Resource Assessment (*The Wyro Company: Rio Vista, CA*)
- Lead Investigator – Ion Communities project sites (*Ion Communities: Riverside and San Bernardino Counties*)
- Surveyor – Tahoe Pilot Project: Validation of California's Wildlife Habitat Relationships (CWHR) Model (*University of California: Tahoe NF*)

## **Forestry**

Mr. Cashen has five years of experience working as a consulting forester on projects throughout California. Mr. Cashen has consulted with landowners and timber operators on forest management practices; and he has worked on a variety of forestry tasks including selective tree marking, forest inventory, harvest layout, erosion control, and supervision of logging operations. Mr. Cashen's experience with many different natural resources enable him to provide a holistic approach to forest management, rather than just management of timber resources.

### **REPRESENTATIVE EXPERIENCE**

- **Lead Consultant** - CalFire fuels treatment projects (*SD and Riverside Counties*)
- **Lead Consultant and supervisor of harvest activities** – San Diego Gas and Electric Bark Beetle Tree Removal Project (*San Diego*)
- **Crew Leader** - Hillslope Monitoring Program (*CalFire: throughout California*)
- **Consulting Forester** – Forest inventories and timber harvest projects (*various clients throughout California*)

## **Grant Writing and Technical Editing**

Mr. Cashen has prepared and submitted over 50 proposals and grant applications. Many of the projects listed herein were acquired through proposals he wrote. Mr. Cashen's clients and colleagues have recognized his strong scientific writing skills and ability to generate technically superior proposal packages. Consequently, he routinely prepares funding applications and conducts technical editing for various clients.

### **PERMITS**

U.S. Fish and Wildlife Service Section 10(a)(1)(A) Recovery Permit for the Peninsular bighorn sheep

### **PROFESSIONAL ORGANIZATIONS / ASSOCIATIONS**

The Wildlife Society

Cal Alumni Foresters

Mt. Diablo Audubon Society

### **OTHER AFFILIATIONS**

Scientific Advisor and Grant Writer – *The Red Panda Network*

Scientific Advisor – *Mt. Diablo Audubon Society*

Grant Writer – *American Conservation Experience*

## **TEACHING EXPERIENCE**

Instructor: Wildlife Management - The Pennsylvania State University, 1998

Teaching Assistant: Ornithology - The Pennsylvania State University, 1996-1997

## **PUBLICATIONS**

Gutiérrez RJ, AS Cheng, DR Becker, S Cashen, et al. 2015. Legislated collaboration in a conservation conflict: a case study of the Quincy Library group in California, USA.

Chapter 19 *in*: Redpath SR, et al. (eds). *Conflicts in Conservation: Navigating Towards Solutions*. Cambridge Univ. Press, Cambridge, UK.

Cheng AS, RJ Gutiérrez RJ, S Cashen, et al. 2016. Is There a Place for Legislating Place-Based Collaborative Forestry Proposals?: Examining the Herger-Feinstein Quincy Library Group Forest Recovery Act Pilot Project. *Journal of Forestry*.